



THIRTEENTH
ANNUAL REPORT
ON THE
HEALTH OF SALFORD,

BY

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1881.

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Health Department,

Town Hall, Salford,

October, 1882.

TO THE GENERAL HEALTH COMMITTEE.

GENTLEMEN,

I beg herewith to present to you my Thirteenth Annual Report on the Health of Salford, namely, that for the year 1881.

This report is in many respects the most satisfactory one that I have ever had the pleasure of submitting to the Committee, inasmuch as it records a higher standard of Public Health during 1881, than has been attained in any previous year since the establishment of this Department.

I gladly embrace the present congenial opportunity of publicly acknowledging my obligations to those who have assisted me in the work of sanitation during the past year. Foremost amongst many willing helpers, I desire again to offer my best thanks to the Editors of the Manchester and Salford press, for the generous assistance they have rendered the cause of Public Health, by the prompt and gratuitous publication of my weekly and quarterly returns throughout the year.

I am, Gentlemen,

Your obedient Servant,

JOHN TATHAM.

CONTENTS.

PART I.—PUBLIC HEALTH.

	PAGE.
I.—HEALTH AND SANITARY PROGRESS DURING 1881 ..	7
II.—CONDITIONS INJURIOUS TO HEALTH	11
III.—ADVICE OF MEDICAL OFFICER OF HEALTH	20
IV.—EPIDEMIC & INFECTIOUS DISEASE (FEV. HOSP. REP.)	22

PART II.—VITAL STATISTICS.

V.—GENERAL STATISTICS.. .. .	29
VI.—BIRTHS, DEATHS, AND MARRIAGES	31
VII.—CLASSIFICATION AND ANALYSIS OF CAUSES OF DEATH	37

PART III.—WORK OF THE HEALTH DEPARTMENT.

VIII.—SANITARY INSPECTION	49
IX.—UNWHOLESOME FOOD, SEIZURE OF	51
X.—SALE OF FOOD AND DRUGS ACT, ADMINISTRATION OF	52
XI.—SANITARY BYE-LAWS, ACTION UNDER	54
XII.—OFFENSIVE TRADES, SUPERVISION OF	55

APPENDIX.

INDEX.

I.—PUBLIC HEALTH.

I.—HEALTH AND SANITARY PROGRESS.

It is my privilege to report that the state of the public health in Salford has been more satisfactory during the year 1881 than in any previous year with respect to which reliable statistics are now extant. Not only has the general rate of mortality been considerably lower than in any of the previous years, but the diseases which are known to be preventible have been less prevalent, or at any rate less fatal during this period than heretofore.

SECTION I.
State of the
Public Health.

Calculated on the population estimated to be living in the middle of the year, the four thousand deaths registered in 1881 were equal to an annual rate of mortality of 22·5 per 1000.

Compared with the mean of the annual death-rates obtaining in the sixteen years which have elapsed since 1865, namely, 28·0 per 1,000, we find that the rate of mortality during the year 1881 was in defect by 5·5 per 1,000. This implies that if the rate of death recorded in the sixteen years 1865 to 1880, had obtained throughout the year 1881, not less than 971 deaths would have occurred in addition to those which actually took place. Consequently, this number represents the saving of life effected during the year.

In congratulating ourselves, as we may reasonably do, on this substantial reduction in the Salford death-toll, it behoves us to be cautious lest we attribute to actually improved sanitary condition, a life-saving which is probably due mainly to meteorological and other conditions which Salford has enjoyed, not exclusively, but merely in common with her neighbours.

The Registrar General's recently issued Annual Summary furnishes the means of comparing with those of Salford, certain vital statistics relating to the larger towns of England, and from this document I have been able to deduce the following particulars with reference to this borough and some other large towns in its vicinity :—

SECTION I.
In Salford as compared with other great English towns.

	Annual Rate of Mortality.		Decrease per cent. in 1881.
	4 Years,* 1877-80.	1881.	
Manchester	28·2	25·5	9·6
Oldham	24·9	22·8	8·4
Bradford.....	23·3	19·7	15·5
Leeds	23·3	21·6	7·3
Sheffield.....	23·9	21·1	11·7
Salford	27·1	22·5	17·0

It thus appears that in the above six towns, the population of which falls little short of a million and a half, there has been a marked although by no means uniform diminution in the rate of mortality during 1881, as compared with the previous four years. And as in every case this decrease was considerably greater in the latter than in the previous years, it is evident that certain conditions favourable to health, and correspondingly inimical to the spread of infection, have been operative generally throughout this district of England during the year 1881.

With this circumstance in view, it would obviously be absurd to claim as the result of improved sanitary condition, exclusively, the very considerable and encouraging reduction in our death rate which we are now privileged to record.

Meteorology.—The mean temperature of the year was 48·3° Fahrenheit, which is lower by just one degree than that of 1880, and almost identical with the average (48·6°) of the mean temperatures of the ten years immediately preceding. The mean temperature at Greenwich was higher than at Salford by half a degree. Rain fell in Salford on 221 days of the year to the aggregate measure of 37·9 inches, which exceeds by nearly 5 inches the Salford rainfall in 1880, and by nearly 13 inches the Greenwich rainfall in 1881.

The first quarter of the year was excessively cold—the mean temperature was 37·3° Fahr., which exceeded by only half a degree the exceptionally low temperature of the first quarter of 1879; and, with this latter exception, was the lowest mean temperature recorded in any first quarter since 1871. The mean temperature of the corresponding periods of the ten years 1871-80 averaged 41·1° Fahr. The minimum readings of the thermometer in the several weeks of January never reached a higher point than 23·0° Fahr.

* See Registrar-General's Annual Summary for 1881.

Meteorological observations in 1881.

March quarter.

SECTION I.

Rain fell during the quarter to the aggregate measure of 10.1 inches, a rainfall which has been exceeded in the first quarters of the preceding decade, on two occasions only.

The second quarter of the year was warmer than usual. The mean temperature, which was 52.6° Fahr., exceeded by 1.4° the average of the mean temperatures in the second quarters of the preceding decade. June quarter.

Rain fell to the aggregate measure of 7.0 inches, which is identical with the amount recorded in the second quarter of 1879, and exceeds by 0.6 inches the average rainfall for this quarter.

The Third Quarter of the year varied little in point of temperature from the average. The mean temperature was 58.0° Fahr., which is almost identical with the average (58.6°) of the mean temperatures recorded in the third quarters of the preceding ten years. The rainfall during the quarter was 11.4 inches, which corresponds very closely with the amount measured in previous corresponding periods. September quarter.

The Fourth Quarter was warmer than usual. The mean temperature, which was 45.2° Fahr., exceeding by nearly a degree and a half the mean temperatures of the ten previous corresponding quarters. The rainfall, which varied little from the average amount, measured 9.4 inches during the quarter. December quarter.

YEAR 1881.

METEOROLOGY, BIRTHS, DEATHS, AND MORTALITY FROM CERTAIN PREVALENT DISEASES
IN EACH WEEK OF 1881.

Progressive Number.	Week.	Temperature of the Air.			Air Pressure.	Horizontal Movement of Air in Miles.	Mean Humidity, Complete Saturation, = 100.	Rainfall in Inches.	Births.	Deaths at the Ages.				Deaths from								
		Highest during Week.	Lowest during Week.	Mean Temperature.						All Ages.	Under 1 Year.	1 to 5 Years.	Over 60.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Respiratory Diseases.	Phthisis.
1	Jan. 8	47.1	23.2	39.5	0.344	1.00	86	0.024	143	77	23	11	10	..	3	2	..	3	1	3	20	9
2	" 15	35.2	17.0	26.4	1.461	0.02	70	..	123	113	18	24	28	..	7	2	..	3	1	1	49	7
3	" 22	35.6	15.0	24.8	0.890	1.04	74	..	124	120	28	22	27	..	5	3	..	3	2	1	50	13
4	" 29	46.6	12.0	31.1	1.363	0.18	74	0.142	153	134	26	15	33	..	..	1	..	4	1	..	54	14
5	Feb. 5	51.9	33.0	42.5	0.756	1.41	90	1.007	147	102	28	11	30	..	..	2	..	1	3	1	41	10
6	" 12	47.4	30.0	37.8	1.274	2.47	84	3.117	142	82	18	17	14	..	2	3	..	4	2	1	26	7
7	" 19	48.0	31.0	40.9	0.618	0.82	86	1.459	150	83	16	13	15	..	1	2	..	2	..	1	21	5
8	" 26	42.0	28.0	35.0	0.600	0.53	81	0.524	133	76	23	8	17	..	2	2	1	1	..	1	22	7
9	Mar. 5	50.1	25.1	38.0	1.028	1.87	76	0.835	135	96	25	14	20	..	..	2	2	..	1	..	35	9
10	" 12	56.1	39.8	49.1	0.912	3.15	86	1.677	165	83	20	14	16	..	..	1	..	3	3	1	20	9
11	" 19	56.3	33.9	44.9	0.700	1.12	86	0.372	128	74	18	12	16	..	1	1	..	2	1	2	19	9
12	" 26	48.6	29.0	38.3	0.710	2.16	76	0.900	127	64	19	11	12	..	2	1	1	..	..	..	17	7
13	April 2	50.7	29.0	37.3	0.412	1.27	70	0.002	141	77	14	13	15	..	1	2	1	2	..	..	26	9
14	" 9	56.2	30.0	39.7	0.276	1.77	74	..	135	74	21	7	16	..	1	1	..	..	..	2	16	7
15	" 16	63.2	35.0	50.0	0.288	0.88	75	0.952	110	78	15	11	15	..	1	1	..	1	1	1	18	16
16	" 23	63.7	32.0	43.7	0.398	1.65	68	0.120	155	66	15	7	14	..	..	1	1	1	..	2	18	9
17	" 30	60.8	39.8	49.6	0.698	1.48	83	0.404	134	100	23	15	22	..	..	1	..	2	..	3	27	17
18	May 7	61.0	40.0	49.0	1.112	1.36	72	0.905	127	66	12	12	9	..	1	..	..	4	1	..	15	14
19	" 14	69.2	38.0	51.6	0.836	0.72	67	0.483	154	70	24	11	7	..	..	4	1	5	1	..	18	8
20	" 21	66.9	39.2	51.5	1.146	2.89	71	1.314	118	80	22	3	17	1	..	1	..	2	1	1	14	10
21	" 28	75.0	47.0	59.7	0.578	1.14	67	1.085	182	67	24	8	11	..	..	1	..	4	2	1	14	12
22	June 4	77.6	47.0	63.0	0.716	0.91	64	0.360	140	67	22	8	14	..	1	1	1	1	..	2	12	11
23	" 11	60.8	41.0	50.5	0.712	0.57	71	0.231	80	73	13	9	19	..	..	..	..	1	1	2	14	12
24	" 18	70.2	44.0	58.6	0.320	0.88	71	0.312	165	70	26	8	10	..	..	..	..	2	1	1	14	8
25	" 25	72.4	47.0	58.8	0.687	1.83	72	0.669	120	52	15	10	4	..	..	1	1	3	..	2	7	9
26	July 2	68.9	49.1	57.7	0.340	0.94	69	0.160	132	47	8	10	8	..	..	2	..	3	..	1	7	11
27	" 9	87.3	50.8	61.9	0.480	1.58	75	1.403	130	63	17	4	12	..	..	..	1	2	..	2	7	10
28	" 16	84.9	54.9	64.2	0.216	0.95	66	..	140	59	17	9	7	..	..	1	..	4	1	4	5	8
29	" 23	75.4	49.2	60.5	0.296	0.71	70	0.271	135	59	19	11	5	..	..	..	..	2	1	5	5	9
30	" 30	68.9	48.6	57.3	0.440	1.57	75	2.135	108	63	20	7	12	..	..	2	..	1	1	9	5	11
31	Aug. 6	81.2	47.2	62.0	0.896	1.66	70	0.984	113	62	28	9	4	..	..	4	2	..	1	10	10	3
32	" 13	67.6	49.2	56.9	0.560	1.16	77	0.892	137	74	34	13	6	..	..	4	1	..	..	18	3	5
33	" 20	70.1	50.0	56.8	0.422	0.98	73	0.836	125	83	23	19	8	..	..	2	1	4	1	8	7	9
34	" 27	68.1	49.2	55.8	0.686	1.78	77	1.210	98	69	26	13	5	..	..	3	..	1	1	8	7	9
35	Sept. 3	66.9	46.8	54.8	0.550	1.25	74	1.250	155	62	14	17	7	..	..	3	..	4	2	8	8	6
36	" 10	64.7	45.7	55.2	0.598	0.42	75	0.118	132	68	26	10	4	..	..	1	..	2	2	8	10	10
37	" 17	65.5	44.0	54.5	0.406	0.35	79	0.855	133	54	16	7	11	..	..	1	..	1	1	4	13	8
38	" 24	68.3	50.1	57.8	0.750	0.96	76	0.962	124	53	21	8	5	..	1	1	..	1	2	4	8	3
39	Oct. 1	66.9	47.7	56.4	0.382	0.56	75	0.478	141	73	25	13	14	..	..	..	1	3	2	7	14	6
40	" 8	64.7	41.2	51.5	0.301	0.51	75	0.400	136	69	21	11	11	1	..	1	..	2	1	8	7	10
41	" 15	59.5	37.7	48.7	1.254	3.29	79	2.440	108	67	23	14	10	..	..	3	..	4	3	5	19	5
42	" 22	56.2	33.0	45.2	0.882	2.50	75	0.060	149	86	28	13	10	..	..	1	..	4	3	2	18	8
43	" 29	51.0	36.0	44.4	0.869	1.40	78	0.060	127	71	23	15	7	1	..	3	..	6	..	5	11	7
44	Nov. 5	59.9	31.2	43.0	0.626	1.36	81	0.739	124	78	31	11	13	..	1	..	1	8	1	6	21	7
45	" 12	60.1	39.8	52.1	0.330	1.46	85	0.202	152	99	31	13	18	..	1	2	..	3	1	..	27	14
46	" 19	60.8	36.0	50.4	0.686	2.70	82	0.704	119	80	32	18	8	2	1	2	1	10	1	2	26	4
47	" 26	56.9	37.0	48.0	0.438	4.40	79	0.950	130	92	24	23	14	..	..	1	..	4	2	3	23	6
48	Dec. 3	52.7	37.9	47.2	1.460	4.20	83	0.970	120	72	17	15	9	..	..	2	1	3	2	..	14	9
49	" 10	51.6	25.6	40.6	0.563	1.20	86	0.544	136	72	19	19	8	..	1	3	..	7	2	2	18	4
50	" 17	44.0	25.6	37.0	1.282	1.50	83	1.672	121	99	25	26	18	..	3	2	..	7	1	1	35	9
51	" 24	43.7	27.0	36.8	1.607	2.24	85	0.532	109	97	20	26	14	..	..	3	1	6	..	..	35	8
52	" 31	50.7	33.8	43.2	0.714	1.30	87	0.517	115	93	25	25	15	2	2	1	1	14	1	1	40	4

II.—CONDITIONS INJURIOUS TO HEALTH.

SECTION II.

1. Atmospheric Impurity (Smoke Nuisance).
2. Want of Medical Aid in Sickness.
3. Infantile Neglect and Illegitimacy.
4. Clandestine Burial of Still-born Children.
5. Brick-burning Nuisance.
6. Faulty System of Excrement Disposal.
7. Tip Nuisance.

1. Atmospheric Impurity.—I do not think that my fellow Smoke nuisance. dwellers in this smoky town will quarrel with me for giving prominence among local nuisances to the polluted condition of the air we breathe. Year after year there has been a growing conviction amongst Salford residents that the annoyance of this kind to which they have to submit, for the exclusive benefit of a small though powerful section of the community, was far in excess of what it need be, having regard to the necessities of commerce; and now public opinion seems to be unanimous in demanding that some effective check should be applied to this most irritating and depressing nuisance.

Scarcely a day passes on which I do not receive communications which strengthen this view, and it is a well known fact that in consequence of this nuisance large numbers of people are flying from our filthy Salford atmosphere and seeking more genial habitations elsewhere.

We may fairly assume, *in limine*, that a smoky atmosphere, such as we have in Salford, is unquestionably prejudicial to health, for if medical opinion may be said to be unanimous at all, it certainly is so on this point. And although the bills of mortality do not reveal more than a fraction of the mischief due to smoke, we may yet fairly lay them under contribution, to show at least as far as possible the extent in which the dwellers in Salford suffer from its presence, as compared with their more fortunate neighbours outside the borough.

Smoky atmosphere injurious to health.

Of all the organs of the body, the lungs obviously suffer most acutely from the presence of irritating substances in the atmosphere, and therefore it will be advisable to compare the Salford mortality from lung complaints with that of communities otherwise similarly circumstanced, but which are not exposed to the deleterious influence of a smoky atmosphere.

Effect of smoke on pulmonary complaints.

The able reports for the last four years of Mr. J. Makinson Fox, the Medical Officer of Health for Mid-Cheshire, are before me, and from these and my own Salford Reports for the same period I cull the following comparative statement as to the mortality in the two localities:—

Comparison of mortality from Lung diseases in the Mid-Cheshire combined district, and in Salford.

Average Annual rate of Mortality from Lung Disease per 100,000 living in the four years 1878 to 1881	Mid-Cheshire.	Salford.
	334	598

SECTION II.

It thus appears that in Salford 598 people in every 100,000 of the population die annually of Lung complaints, as compared with only 334 in Mid-Cheshire, a combined sanitary district not more than a few miles distant, and containing at the last census a population of 136,000 people. The conditions of life in this district are not superior to those in Salford, with the one exception that the atmosphere is less contaminated by smoke. The people generally are not more prosperous or better fed, and the climate is certainly not warmer than that of our own town, so that the extreme difference in mortality from respiratory disease may be assumed to be mainly if not entirely due to the smoke nuisance.

The above will probably be considered a sufficiently heavy indictment, as against the Salford atmosphere, but it is not by any means all that may be adduced, and if it were possible to measure the mischief indirectly due to a smoky atmosphere, the charge would be much more serious. I have no desire, however, for the present to pursue this part of my subject further.

Efforts of the Health Department to diminish the nuisance.

Let us now consider what efforts have been made in Salford of late years to abate this nuisance.

From the year 1875 up to the present time 181 notices have been served upon the various steam-using firms to construct their furnaces so as to consume their own smoke. Of these firms 86 have complied with the notices, and the remaining 95 have for various reasons hitherto failed to do so.

The following table shows the number and construction of the steam boilers and other furnaces in use in the Borough of Salford at the present time:—

Steam boilers and other furnaces in Salford in 1881.

District.	Boilers and Furnaces.		Notices to Properly Construct Furnaces.	
	Properly constructed.	Improperly constructed.	Number served.	Number complied with
Borough of Salford }	316	301*	119	53
Regent Road..	109	85	38	14
Greengate	80	107	44	17
Pendleton	115	97	30	17
Broughton....	12	12	7	5

* Although these furnaces are improperly constructed, they are in many cases so skilfully and carefully worked that no nuisance is caused, consequently no action has been necessary on the part of the Smoke Inspector.

APPROXIMATE NOMINAL HORSE-POWER OF STEAM
BOILERS IN USE.

SECTION II.

Nominal horse-
power of steam
boilers in Salford.

Borough of Salford.....	18,488
Regent Road	6,628
Greengate.....	4,696
Pendleton.....	6,592
Broughton	572

The following tables shew the number of establishments, other than mills and factories, which use furnaces, and therefore come under the notice of the Smoke Inspector. I am bound to say, however, that with few exceptions, they give rise to no nuisance in excess of what would necessarily be emitted from the chimney of an ordinary dwelling house.

BLACKSMITHS' FORGES IN THE BOROUGH, 1881.

Borough Total.	Regent Road.	Greengate.	Pendleton.	Broughton.
39	13	10	11	5

Blacksmiths'
forges in Salford.

Emissions of dense smoke were observed from two only of the above forges during the year. Two notices were served under the Public Health Act, and the nuisance was abated.

BAKEHOUSE FURNACES IN THE BOROUGH, 1881.

Borough Total.	Regent Road.	Greengate.	Pendleton.	Broughton.
71	37	15	13	6

Bakehouse fur-
naces in Salford.

Three of these furnaces were found to be improperly constructed, but the owners made the necessary alterations, and consequently no formal proceedings were necessary.

Up to the year 1875 the district Sanitary Inspectors were charged with the duty of smoke inspection; but in that year a Smoke Inspector was appointed to devote the whole of his time to this important work. This arrangement, however, only lasted for a short time; for in the year 1876, when the Salford Corporation put in force the Adulteration of Food Act, the Smoke Inspector was directed to divide his time equally between the two duties, and this order has continued in force ever since.

Smoke Inspector
appointed.

On referring to the Reports of the Salford Council for 1856, I find that in that year the Corporation appointed an Inspector to *devote the whole of his time to Smoke Inspection*. Since that time the population of Salford has almost doubled, and in all probability the works which are liable to produce dense smoke have increased in at least equal proportion. If, then, in the year 1856, when the population of Salford did not exceed 96,000, the whole time of an inspector was needed to keep

SECTION II.

down the smoke nuisance, it is difficult to avoid the conclusion that at the present time, when the smoke producing power of the factories has certainly doubled, the work cannot be efficiently done by an inspector who devotes only half his time to this portion of his duty. In saying this I desire to guard our present Smoke Inspector against any imputation of blame. The Committee will, I think, agree with me that Inspector Thompson has fulfilled the duties of his office with a high degree of efficiency. He thoroughly understands his work, and I have reason to know that his services as a Smoke Inspector are duly appreciated in Salford.

Means at present disposal of Health Department inadequate.

It daily, however, becomes more obvious that the means at our present disposal are inadequate to cope with the degree of smoke nuisance at present existing. Anyone who is obliged to live within the area of its influence must feel this keenly,—not only human life, but vegetable life, also, is blighted and seriously prejudiced; and, besides this, as before-mentioned, public opinion is beginning to become dissatisfied with the slight impression which the Health Department is able to make on this most irritating nuisance. In any action which the Committee may think fit to take, they will, I am sure, desire to respect the interests of that important class of the community—the smoke producers themselves. They will have as little sympathy as myself with those irresponsible persons who clamour for a state of atmospheric purity which is wholly incompatible with the commercial necessities of a vast manufacturing community like that of Salford; but still, I trust, they will see their way to take some further and more effective action in the matter than heretofore, and at least to apportion to Inspector Thompson the smoke nuisance as his especial and only charge. I feel certain that if he were relieved of his other duties, the inspector would be able in a short space of time, to effect a very marked improvement in the smoke nuisance of Salford.

Smoke Inspector should devote the whole of his time to this work.

TABLE A.

CERTIFICATION OF THE CAUSES OF DEATH IN 1881, AND FOUR PREVIOUS YEARS 1877-80.

	Total Deaths.	Certified by		Not Certified.	Proportion per cent. of Deaths.			
		Registered Medical Practitioners.	Coroner.		Certified by		Not Certified.	
					Registered Medical Practitioners.	Coroner.		
Borough .. {	1877-80	17709	16051	790	868	90.6	4.5	4.9
	1881	4000	3607	178	215	90.2	4.4	5.4
1881.								
Regent Road District		1745	1561	74	110	89.5	4.2	6.3
Greengate ,,		790	700	45	45	88.6	5.7	5.7
Pendleton ,,		936	851	45	40	90.9	4.8	4.3
Broughton ,,		529	495	14	20	93.6	2.6	3.8

2.—Want of Medical Aid in Sickness.—Of the 4,000 persons dying in Salford during the year, 3,607, or rather more than 90 per cent., were attended in their last illness by legally-qualified medical practitioners, 178, or 4.4 per cent., were buried by the Coroner's order after the usual inquiry, and 215 persons, or 5.4 per cent., died without medical attendance.

SECTION II.

Non-certification of cause of death.

It will be seen by the above table that the percentage of uncertified deaths in Salford was greater during 1881 than in the four previous years. In the 20 great towns of England the proportion did not exceed 2.4 per cent. The following table, in which the 20 great towns of England are arranged in order—beginning with those in which the proportion of uncertified deaths in 1881 was greatest—shews that Salford stands the next highest after Oldham and Hull; and it is a fact full of significance, to which I would very respectfully ask the attention of the Salford county magistrates, that of all the great English centres of industry, these three towns—Oldham, Hull, and Salford—are those in which the proportion of inquests to

SECTION II.
Proportion of In-
quests to total
deaths

registered deaths is the lowest. If then these figures,* which show the proportion of inquests to mortality in the various great centres of English industry, represent the local estimate of the value attaching to human life, I cannot say that Salford has much cause for self-congratulation. In any case, a satisfactory explanation is much to be desired of the fact that life is so lightly valued in Salford that we hold it sufficient to inquire into the cause of death in the case of one only out of every 22 persons dying, whereas, in Birmingham and Manchester human life is so highly prized that it is considered that public responsibility can only be satisfied by the holding of a formal inquiry in the case of at least one in every 11 persons dying.

Percentage of un-
certified deaths
and of inquests
held in the 20
great English
towns.

Towns.	Percentage to Total Deaths.		Towns.	Percentage to Total Deaths.	
	Uncerti- fied Deaths.	Inquests.		Uncerti- fied Deaths.	Inquests.
Oldham	6·1	2·8	Norwich	2·8	6·1
Hull	5·5	3·9	Bristol	2·7	7·3
Salford	5·4	4·4	Manchester ..	2·5	9·3
Wolverhampton..	5·3	5·1	Brighton	2·0	4·6
Sheffield	4·9	4·4	Leicester	1·8	7·7
Sunderland ..	4·1	4·8	Plymouth	1·5	6·2
Liverpool	4·0	5·6	Birmingham ..	1·4	9·4
Leeds.. .. .	4·0	6·1	London	1·3	6·8
Bradford	3·9	4·6	Nottingham ..	1·1	5·5
Newcastle-on-Tyne	3·4	6·9	Portsmouth ..	0·6	5·4

Excessive infan-
tile mortality
caused by ma-
ternal neglect.

3.—Infantile Neglect.—There is unfortunately little ground for hoping that in the year 1881 infantile neglect formed a less important factor as a cause of Salford mortality than in former years. The rate of mortality amongst infants was unquestionably less, *absolutely*, than in previous years, corresponding in this respect with the lowered mortality at other ages, but relatively to the total mortality it varied not more than 0·4 per cent. from what may be called its normal proportion† in Salford. In former reports I have considered the question of our excessive infantile mortality, and the relation to it of factory labour and other causes which lead to the neglect of infants by their mothers. I have also endeavoured to direct the attention of philanthropists to the need which exists in Salford of an

* Taken from the Registrar-General's Annual Summary, 1881.
† The percentage of infantile deaths to total deaths in the five years 1877-81 was 28·4.

adequate extension of the day nursery system, on a scale something like adequate to the needs of those whose circumstances forbid their devoting the necessary time to the care of their children. It will be remembered that for many years past a small day nursery has been doing good work in Arlington Street, and I am informed that it is highly appreciated in that district. Very recently, however, through the liberality of Mr. Richard Howarth, who has contributed the use of the necessary apartments free of charge, a large day nursery has been established at Ordsall Hall, which, when complete, will probably accommodate from 50 to 60 children. The members of the Manchester and Salford Sanitary Association, who have established this nursery, are using every endeavour to secure its complete success, and when the alterations at present in progress are complete, I can affirm that the Hall will be admirably adapted to the purpose for which it is intended. In this great errand of mercy to the suffering little ones of Salford, most surely the Association deserves hearty support from every well-wisher of the struggling but independent working man. This is a labour of love, indeed, in which every well-to-do father and mother should take an interest and lend a helping hand.

SECTION II.
Day nursery in
Arlington street.

New day nursery
at Ordsall Hall.

TABLE B.

BIRTHS IN THE BOROUGH OF SALFORD AND IN ITS FOUR REGISTRATION SUB-DISTRICTS IN 1881, AND IN FOUR PREVIOUS YEARS, DISTINGUISHING LEGITIMATE AND ILLEGITIMATE BIRTHS; ALSO, THE PROPORTION OF MORTALITY AMONG INFANTS UNDER ONE YEAR.

	Births.		Percentage of Illegitimate Births to Total Births.	Deaths under one year.		Proportion of Deaths under one year per 1000 Births.		
	Total.	Illegit.		Total.	Illegit.	Total.	Legit.	Illegit.
Borough	1877-80	28369 1189	4.2	5065	484	179	168	407
	1881	6880 309	4.5	1122	101	163	155	327
1881 Regent Road District. . .	2826	128	4.5	505	52	179	167	406
Greengate ,, ..	1243	73	5.8	195	20	157	149	274
Pendleton ,, ..	1698	77	4.5	272	17	160	157	221
Broughton ,, ..	1113	31	2.8	150	12	135	128	387

SECTION II.

Births of Illegitimate children

Illegitimacy.—Of the total number of births registered in the Borough during the year, 309 were illegitimate. The proportion of children illegitimately born was therefore equal to 4·5 per cent. of the total births in 1881, as compared with 4·2, the percentage obtaining in the four preceding years.

Comparison of mortality amongst legitimate and illegitimate children.

Table B affords the means of ascertaining the effect of illegitimacy on the mortality of infants thus unfortunately brought into the world. During the year 1881 the deaths of 101 illegitimate children under one year old were registered, a number equal to 327 per 1,000 births, whereas the rate of mortality amongst children born in wedlock did not exceed 155. The rate, however, was much lower amongst illegitimates in 1881 than in the four previous years, when it averaged not less than 407 per 1,000. This table also shows that the rate of infantile mortality amongst illegitimate children varies considerably in the different registration districts. Thus it was as high as 406 during the year in the district of Regent Road, whilst it did not exceed 221 in Pendleton. It will be observed that the percentage of illegitimate births is not excessive in the district of Regent Road, which contains the Workhouse, although not less than 64 illegitimate births occurred at that establishment during the year. This is due to the fact adverted to in previous reports, that in the compilation of Salford statistics the births as well as the deaths occurring in public institutions are invariably referred to the localities from which the mothers in the former case, and the patients in the latter, were derived.

It appears from the above facts, that infants unhappily born out of wedlock are shamefully neglected by their mothers; and that, as compared with their more fortunate brothers and sisters, they stand a poor chance indeed of survival.

Burial of infants as still-born without registration.

Clandestine Burial of Still-born Infants.—The Registrar of the Salford Cemetery informs me that during last year 299 infants were buried there as still-born, 200 of which were accompanied by a midwife's certificate only, no qualified practitioner having been present at the birth. The number of children stated to have been still-born, which are thus disposed of, is increasing year by year. Unfortunately, the law makes no provision for the compulsory registration of still-born infants; and, consequently, their burial is left practically without supervision. I cannot contemplate with satisfaction the facility which this laxity of the law offers for the clandestine burial of infants as still-born which have, in all probability, met their death otherwise than by what are called natural causes.

Proceedings against a Salford midwife for issuing false certificate.

Prosecution for issuing False Certificate of Birth.—In this connection it is satisfactory to notice that an example has recently been made of a Salford midwife for endeavouring to procure the burial of a child as still-born, although, as she well knew, the child was born alive. The proceedings, which were instituted by Mr. T. H. Bagshaw, the Superintendent-Registrar,

were taken under Section 40 of the Births and Deaths Registration Act, 1874, which is as follows:—

SECTION II.

Any person who commits any of the following offences; that is to say,—

(a) Wilfully makes any false certificate or declaration under or for the purposes of this Act, or forges or falsifies any such certificate or declaration, or any order under this Act, or knowing any such certificate, declaration, or order to be false or forged, uses the same as true, or gives or sends the same as true to any person; or,

(b) Wilfully makes, gives, or uses any false statement or representation as to a child born alive having been still-born, or as to the body of a deceased person or a still-born child in any coffin, or falsely pretends that any child born alive was still-born; or,

(c) Makes any false statement with intent to have the same entered in any Register of births or deaths, shall for each offence be liable on summary conviction to a penalty not exceeding ten pounds, and on conviction on indictment to fine or to imprisonment with or without hard labour for a term not exceeding two years, or to penal servitude for a term not exceeding seven years.

The facts of the case are these:—In September last the defendant attended a woman in her capacity as a midwife, and after she had left her patient, it was discovered that the child was bleeding, probably from the funis. At any rate, the child ultimately died. The proper course would obviously have been to register the birth of the child, and also its death, in the usual way; the midwife, however, for purposes of her own, gave a certificate to the effect that the child was still-born, and thus procured its interment in an illegal manner. The Coroner's Officer having been informed of this, an inquiry ensued, which resulted in the present prosecution by Mr. Bagshaw, at the request of the Registrar-General. The defendant was fined the full penalty, £10 and costs, with the alternative of one month's imprisonment.

Particulars of offence.

Conviction and penalty.

Brick-Burning Nuisance.—Many complaints have been made during the year of the nuisance caused by the burning of bricks in close proximity to dwelling-houses. Our local Act provides that this nuisance shall not exist within sixty yards of any inhabited property, but somehow or other the brickmakers of Salford seem to imagine that the Act of Parliament, so far as they are concerned, is to remain a dead letter, for the instances in which they infringe its provisions are daily increasing in frequency. During the year 1881, however, the Health Committee have intimated very plainly their intention to administer faithfully the powers they possess in this direction by summoning three of the worst offenders before the proper tribunal, the Borough Magistrates, by whom they were severely fined. It would probably be well to caution those of the public who are

Bye-laws as to Brick-burning.

Proceedings under during 1881.

SECTION II. engaged in the manufacture of bricks that the Health Committee are determined to enforce to the very letter the provisions of their local Act with respect to the brick-burning nuisance.

Excrement removal.

Improved system suggested.

Faulty System of Excrement Disposal.—In my Eleventh Annual Report* I drew the attention of the Committee to an objectionable practice adopted by the scavengers in the collection of midden refuse, namely, that of depositing on the surface of the street, at each passage end, the contents of all the middens to which the passage was common, and thus contaminating several yards of the street surface with liquid ordure. After consultation with the Borough Engineer, I ventured to suggest certain improvements which seemed likely to effect a diminution of this nuisance, namely, the lowering of the manure carts so as to allow of the direct tipping into them of the midden refuse, and the adoption of a new system by which the contents of the barrows which had been wheeled from the middens may be thus inoffensively removed, instead of being deposited on the surface of the street. Although this recommendation was made two years ago, I am sorry to find that the Committee have not seen their way to adopt it. I therefore venture again to ask their attention to the matter, and to assure them that the nuisance from this source has not abated since the date of my previous report.

Nuisance arising from the tipping of night-soil refuse.

The Tip Nuisance.—In my successive reports for many years past I have drawn attention to the time-honoured but most objectionable practice of “making ground” by piling up load upon load of midden refuse, and then permitting the erection of dwelling houses upon the festering mass thus heaped together. It gives me pleasure to note that the Salford Scavenging Committee have determined to prohibit this practice for the future, and that they have almost completed arrangements for carbonising in a huge destructor the whole of the midden refuse, and other useless matters requiring removal, and which for many years past have been disposed of in the above-mentioned objectionable fashion. I trust that the other Scavenging Committees of the Borough will see fit to imitate this praiseworthy attempt to get rid of a most serious nuisance.

SECTION III. III.—ADVICE OF MEDICAL OFFICER OF HEALTH.

Medical officer's advice to Health Committee.

At each fortnightly meeting of the Health Committee during the year the reports of the Medical Officer of Health have been duly presented. In addition to the ordinary record of work done by the officers of the Health Department, these reports contained a detailed account of the state of the public health in the various districts of the borough from time to time, and the Medical Officer's advice to the Committee on matters relating to the prevalence and prevention of infectious diseases. As these recommendations were for the most part carefully con-

* Report of the Medical Officer of Health for 1879, page 12.

SECTION III.

sidered and dealt with by the Committee at the time, it would be useless to further notice them here. There was, however, one important matter to which I felt bound to direct the attention of the Health Committee, and which may usefully be re-introduced to their notice, inasmuch as it is of very vital importance in a preventive sense, and its consideration cannot safely be further postponed.

In September last I reported* to the Committee my conviction that the time had fully come when they should consider the advisability of procuring an effective apparatus for the disinfection by heat of whatever bedding required such treatment at the hands of the Health Department. The need of such an apparatus was urged on the following grounds:—

As to means necessary for effective disinfection of bedding.

“ 1. The stove we now possess is very wasteful as to the amount of gas burnt in proportion to work done, because it possesses no automatic means of regulating the supply.

“ 2. Our present stove destroys, either wholly or partially, so large a proportion of the articles submitted to its action that I have lately discontinued its use as far as possible, and resorted to other and more inconvenient modes of disinfection. To prove how extravagant is our present process of disinfection, I may say that during the twelve months ending in March last a sum of very nearly £20 was paid by this Committee by way of compensation for articles destroyed, either by the stove in the process of disinfection, or by the scavengers at my request, because the articles were not worth the excessive amount of gas required. Added to this, I must express the opinion that there are many articles of dense structure, the effectual disinfection of which cannot be guaranteed in consequence merely of having been subjected to the action of our present stove. So thoroughly convinced am I of this, that I have recently been compelled to ask my friend, Mr. Leigh, of Manchester, to disinfect for me in his stove some beds and expensive clothing sent to me for this purpose.*

The Committee carefully considered the above report, together with some other particulars which I subsequently obtained for their information, and appointed a Sub-Committee to take into consideration the advisability of giving effect to my recommendation. It is probable that the Sub-Committee may have purposely delayed their report from a wish to satisfy themselves as to which of two rival stoves they should select. I must, however, express the hope that the Health Department may shortly be supplied with this most essential means of defence against the spread of infection, so that we may not be obliged to depend upon the good offices of our neighbours for the future.

In September last the advice of the Medical Officer of Health was called for as to the best means of exhuming a body at the Salford Cemetery, by order of the Secretary of State—a pro-

As to exhumation of body by order of Secretary of State.

* Report to the Health Committee, September 1st, 1881.

SECTION III. ceeding which was not unnaturally expected to give rise to considerable nuisance. The operation was carefully conducted, with special precautions, under the supervision of Inspector Wilkinson, and as far as we know without injurious effects to the men employed in the task.

On the 9th of November last I submitted the following report to the Health Committee, with reference to complaints which were prevalent at the time as to the condition of the drinking water.

As to condition of water supply in the Autumn of 1881.

“The alleged unpleasant character of the water supplied to the neighbourhood of Ordsal and Regent Road has for some time past been a subject of frequent and general complaint by the inhabitants of these localities. Complaints have been made to me by letter, and the press has been appealed to as a means of drawing official attention to the subject. Under these circumstances I need hardly say that I have used my best endeavours to investigate the matter thoroughly, with a view, if possible, of tracing the alleged mischief to its source, provided the complaints turned out on examination to have a sound foundation. The Chief Inspector for the district and his two assistants, together with myself, have paid a large number of visits to the suspected neighbourhoods, making inquiries from the inhabitants, and collecting samples for analysis in such cases as we thought advisable. Hitherto, however, we have failed to procure a single sample of unpalatable or offensive water, and the householders appealed to, although in many cases complaining of the previous unsatisfactory condition of the water, were unable to show us in any case drinking water which could in any way be objected to, on the score either of taste, of odour, or of appearance; and the samples taken by the Inspector, and submitted to the Public Analyst for examination, have been reported by him to be pure and wholesome.”

IV.—EPIDEMIC AND INFECTIOUS DISEASE.

SECTION IV. It is satisfactory to be able to report that during the year under notice Salford has been freer from infectious disease than in any of the preceeding ten years, and that the mortality to which these complaints gave rise was just half the average annual rate.*

Freedom of Borough from infectious disease

Typhus epidemic.

Typhus Epidemic.—The fortnightly reports of the Medical Officer presented during the year to the Health Committee record the continuance and ultimate cessation of the epidemic, of which the commencement was notified in last year's report. They also record the occurrence of several localised epidemics of infectious disease, and also the action which the Health Department has taken in each case, with the object of stamping out the several diseases, by isolation of the patients, and the careful disinfection of the houses and clothing.

* That is, the average of the annual rates in the ten years 1871-80.—See table on page 32.

Measles at Irlams-o'th'-Height.—On January 29th I reported that a sharp epidemic of measles had occurred at Irlams-o'th'-Height during the previous few weeks. Some idea may be formed of its extent from the fact that on one occasion there were absent on this account from St. John's School alone not less than thirty-three children. Careful inquiries on my part left no doubt that the epidemic had spread by direct infection. The sanitary condition of the houses in which the patients live were in most cases satisfactory. Up to the date of the report the department had received information of the occurrence of about 60 cases in the neighbourhood.

SECTION IV.

Measles epidemic.

Small-pox in Regent Road.—On the 18th May the Registrar reported a death from confluent small-pox in Regent Road. This was the first death from this horrible disease in Salford since the year 1878. Several other cases were reported as having occurred sporadically during the year, in the majority of cases the patients were removed to hospital, and in no case did the disease spread from the house first affected, every precaution having been adopted as regards destruction of bedding and disinfection; but inasmuch as Salford was in daily intercommunication with districts in which the disease was known to be prevalent, I thought it advisable to issue posters and handbills, urging attention to vaccination and re-vaccination. I am pleased to notice the readiness with which the managers of the various mills, and the other employers of labour, assisted me in distributing these handbills to those in their employ.

Small-pox.

Scarlet Fever in Gold Street and Charles Street.—On August 18th I reported the occurrence of two circumscribed epidemics of scarlet fever, which occurred simultaneously in two localities somewhat remote from one another. In one of these, namely the neighbourhood of Gold Street, Pendleton, at least four houses are known to have been attacked, but, as usual, we only got information of the fact when most of the mischief had already been done. Out of a family of four children living in Gold Street, not less than three deaths occurred.

Epidemic of Scarlet Fever in Gold Street and Charles Street.

The other locality affected was that of Charles Street, Hope Street, Salford, where three cases occurred in one house, and of these one died. Although every attempt was made to procure the removal of these cases, we were unsuccessful—the reason alleged being, the severity of the case in one instance, and our late appearance on the scene in the rest. I have every reason, however, to believe that the action which we were permitted to take in the way of disinfection, and the destruction of the bedding, clothes, &c., was instrumental in materially checking the fever.

Scarlet Fever in Pendleton.—On September 27th I reported that a sharp epidemic of scarlet fever had lately visited the neighbourhood of Brindle Heath, Pendleton. Within the pre-

Scarlet Fever in Brindle Heath.

SECTION IV.

Assistance rendered by Schoolmaster by notification of cases.

vious month it is believed that about 60 cases had occurred in the district immediately contiguous to the Brindle Heath Schools. Inspector Buxton discovered that 30 houses at least had been infected up to that date. In one of the houses in Sharp Street (No. 7) the mother and five children took the disease, and one of the children died. In consequence of the assistance which this department received from the master of the Brindle Heath Schools, the disease did not spread to any great extent amongst the scholars. Mr. Cowburn had the good sense to inform me whenever a scholar absented himself from school, and I was in consequence able in many instances to discover the existence of cases which, but for this timely warning, would probably have led to the general diffusion of the disease amongst the scholars, and in all probability to the closure of the schools. I am pleased to be able to report that the disease was well held in check by the prompt and energetic action of Inspector Buxton, which deserves from me the highest commendation. A few new cases still cropped up here and there; but I expressed the hope that the worst was past, and that I should soon be able to report the termination of the epidemic. Unfortunately, we did not succeed in obtaining the removal of more than a very few of these cases to hospital. It may be explained, with reference to this failure, that most of the patients belonged to the better class of artisans, who were in most cases attended as private patients by local medical practitioners, but I regret to say that I received but little assistance from the latter in my attempts to secure isolation of the patients. The mere fact, however, of the notification of these cases to me by the schoolmaster and certain of the medical men, greatly assisted in the early suppression of the epidemic.

Child-bed Fever.

Puerperal Fever.—On the 24th November I reported that within the previous few weeks six cases of puerperal fever had occurred in Pendleton, and that there was good reason to suspect that the disease had been communicated by midwives in the employ of the St. Mary's Hospital. I promptly communicated with the officers of that institution, who ordered the midwives at once to desist from attending any more confinements. I also took care that the clothes of the midwives should be thoroughly disinfected or destroyed before allowing the women to return to their duties after the period of quarantine had elapsed.

ISOLATION OF INFECTIOUS DISEASE.

Fever Hospital report.

During the year under report 171 persons suffering from dangerous infectious diseases were isolated by the Health Department. Of these 162 were admitted to the Wilton Hospital, in Cross Lane, and nine were sent to Monsal. The accompanying table shows the ages of the patients and the diseases for which they were admitted. Inasmuch as the

SECTION IV.

admissions to hospital in 1881 fell short of the number admitted in former years, it might appear at first sight that for some cause or another the hospital had not been utilised by the public during the latter year as freely as heretofore. On reflection, however, it is evident that the test of the success or otherwise of an infectious hospital is not the mere number of patients admitted, without reference to the prevalence of infectious disease in the district for which hospital accommodation is provided, but the proportion which the hospital admissions bear to the total number of infectious cases requiring such isolation, and if this test be applied to our own case, we shall find that there is no ground for fearing that the Wilton Hospital is losing favour with the public. The following figures will prove this:—

	Four years, 1877-80.	1881.
Deaths from infectious disease in Salford..	2459 ..	367
Admissions to hospital	1160 ..	171
Percentage of admissions to deaths	47.2*	46.6

Since the opening of the hospital in 1876, the Sanitary Authority of Salford has provided isolation for not fewer than 1,432† patients for the protection of the public health. Of these 231 were suffering from smallpox, 176 from measles, 517 from scarlet fever, 107 from typhus fever, 234 from enteric fever, and 167 from other acute diseases.

Number of persons isolated since opening of hospital.

The following figures show the Cost of Maintenance in the Wilton Hospital during the year 1881:—

Hospital expenditure in 1881.

	£	s.	d.
Salaries of Resident Medical Officer & Matron..	202	4	4
Wages of Nurses	513	5	0
Rates, Taxes, and Insurance	152	7	7
Coal, Gas, and Water	339	16	4
Meat, Provisions and Groceries.....	813	15	2
Medicine and Stimulants.....	216	13	9
Disinfectants.....	0	16	0
Clothing for Patients	11	1	7
Repairs	211	11	10
Provender and Farriery	67	14	0
Printing, Stationery, &c.....	7	18	10
Cleaning Materials, &c.	60	1	0
Collecting Hospital Charges	17	15	11
	<u>£2615</u>	<u>1</u>	<u>4</u>

The average duration of each patient's residence in hospital during the year has been 37 days.

Average duration of residence in hospital.

* This proportion is larger than it would have been had not small-pox been prevalent in the earlier part of the period 1877-80. Patients suffering from small-pox are easily induced to go into hospital.

† In my Eleventh Report the number admitted up to the end of that year is erroneously stated. The number should have been 1261.

HOSPITAL REPORT FOR THE YEAR 1880.

(52 Weeks ending December 31st, 1881.)

	Males.		Females.		Total.	Salford Cases sent to Monsall.	
	Under 5.	Over 5.	Under 5.	Over 5.		Under 5.	Over 5.
I.—Patients remaining in Hospital on Dec. 31st, 1880, affected with							
Measles	1	..	1	1	3	..	..
Scarlet Fever	4	7	..	4	15	..	..
Typhus Fever .....	..	..	..	..	..	..	3
Enteric Fever .....	..	2	..	5	7	..	..
Total	5	9	1	10	25	..	3
II.—Admitted during the 52 Weeks ending Dec. 31st, 1881, affected with							
Small Pox	1	6	1	6	14	..	1
Measles .....	..	3	1	1	5	..	..
Scarlet Fever	21	19	11	29	80	..	..
Diphtheria .....	..	1	..	1	2	..	..
Typhus Fever	1	8	..	12	21	..	8
Enteric Fever	2	15	..	14	31	..	..
Simple Continued Fever .....	..	..	..	2	2	..	..
Erysipelas .....	..	..	..	1	1	..	..
Other Acute Diseases .....	..	3	..	3	6	..	..
Total	25	55	13	69	162	..	9
Total under Treatment in 1881 ..	30	64	14	79	187	..	12
III.—Of the above there were discharged recovered from							
Small Pox .....	..	5	..	2	7	..	1
Measles	1	1	2	2	6	..	..
Scarlet Fever	18	21	6	28	73	..	..
Diphtheria .....	..	..	..	1	1	..	..
Typhus Fever	1	8	..	10	19	..	8
Enteric Fever	2	11	..	18	31	..	..
Simple Continued Fever .....	..	..	..	2	2	..	..
Other Acute Diseases .....	..	1	..	..	1	..	..
Total	22	47	8	63	140	..	9
IV.—Died from							
Small Pox	1	1	..	2	4	..	..
Scarlet Fever	4	4	2	3	13	..	..
Diphtheria .....	..	1	..	..	1	..	..
Typhus Fever .....	..	..	..	2	2	..	3
Enteric Fever .....	..	5	..	1	6	..	..
Other Acute Diseases .....	..	2	..	2	4	..	..
Total	5	13	2	10	30	..	3
V.—Remaining in Hospital on Dec. 31st, 1881, affected with							
Small Pox .....	..	..	1	2	3	..	..
Measles .....	..	2	..	..	2	..	..
Scarlet Fever	3	..	3	2	8	..	..
Enteric Fever .....	..	2	..	..	2	..	..
Erysipelas .....	..	..	..	1	1	..	..
Other Acute Diseases .....	..	..	..	1	1	..	..
Total	3	4	4	6	17	..	..
Total under Treatment in 1881....	30	64	14	79	187	..	12

II.—VITAL STATISTICS.

V.—GENERAL STATISTICS.

Area.—The Municipal Borough of Salford, comprising the Townships of Broughton, Salford, and Pendleton, together with a detached portion of Pendlebury, contains an area of 5,170 acres, or rather more than eight square miles.

SECTION V.

General statistics

Elevation.—The population of Salford resides at a mean elevation above the sea level of 140 feet. The maximum elevation is 250, and the minimum 85 feet. The low-lying land predominates in extent over that at higher levels.

Inhabited Houses.—At the census taken in April of this year there were 34,213 inhabited houses in the Borough, each house containing an average of 5·15 persons. At the census of 1871 the average was 5·20.

Annual Rateable Value.—The annual rateable value of property in Salford in 1881 was £801,192, which is an increase of £5,786 on that of the previous year. In the year 1871 it was £517,048.

Population.—Corrected by the recent census enumeration, the estimate of the population of Salford in the middle of 1881 is 177,755.

The following are the populations enumerated at the census of 1871, and that of 1881 respectively:—

Census Enumera-
tions 1871 and
1881.

	1871.		1881.		Increase or Decrease. Per cent.
Borough of Salford ..	124,805	..	176,233	..	+41·2
Regent Road District ..	46,674	..	69,716	..	+49·4
Greengate ..	36,606	..	31,867	..	—12·9
Pendleton ..	26,564	..	43,117	..	+62·3
Broughton ..	14,961	..	31,533	..	+110·8

The districts of Regent Road, Pendleton, and especially Broughton, are thus shown to have increased rapidly during the intercensus period, but the district of Greengate has decreased in consequence of the demolition of bad property, which has been going on during the last few years.

Annual Rate of Increase.—*The natural increase* to the population of Salford in 1881, by excess of births over deaths was 2,880. Assuming that the emigrants and immigrants were equal in number, the annual rate of increase would be equal to 1·7 per cent.

TABLE C.

POPULATION, DENSITY, BIRTHS, AND DEATHS; TOGETHER WITH THE
MARRIAGE, BIRTH, AND DEATH-RATES IN THE BOROUGH OF SALFORD
FOR EACH OF THE SEVENTEEN YEARS, 1865-1881.

Year.	Population estimated to the middle of each year.	Density. Persons per Acre.	Births.	Deaths.	Annual Rate per 1000 living.		
					Mar- riages. †	Births.	Deaths.
1865	111,414	21·6	4,207	3,239	12·9	37·8	29·1
1866	113,635	22·0	4,307	3,268	13·4	37·9	28·8
1867	115,901	22·4	4,517	3,267	14·3	39·0	28·2
1868	118,211	22·9	4,715	3,661	13·3	39·3	30·5 *
1869	120,567	23·3	4,681	3,182	14·1	38·8	26·4
1870	122,967	23·8	4,870	3,167	14·1	39·6	25·8
1871	125,890	24·3	5,127	3,815	14·6	40·7	30·3
1872	130,301	25·2	5,399	3,299	15·1	41·5	25·3
*1873	134,883	26·1	5,691	3,884	14·4	41·6 *	28·3 *
1874	139,618	27·0	5,884	3,935	16·2	42·1	28·2
1875	144,518	27·9	6,421	4,271	17·5	44·4	29·5
1876	149,591	28·9	6,806	4,407	20·5	45·5	29·5
1877	154,842	29·9	6,866	4,079	19·6	44·4	26·3
1878	160,277	31·0	7,161	4,336	17·9	44·7	27·1
*1879	165,899	32·1	7,240	4,495	15·2	43·0 *	26·7 *
1880	171,727	33·2	7,102	4,799	16·6	41·3	27·9
1881	177,755	34·4	6,880	4,000	16·3	38·8	22·5

* In the years 1868, 1873, 1879, the facts are those registered in 53 weeks, corrections have therefore been made in calculating the rates.

† *i.e.*, Persons married per 1000 of the population in the Registration District of Salford.

VI.—BIRTHS, DEATHS, AND MARRIAGES.

SECTION VI.

Marriages.—1,490 marriages were contracted last year within the registration district of Salford, against 1,466 and 1,298 in the two previous years respectively.

The marriages registered in 1881 give a *rate of persons married* per 1,000 of the population equal to 16·3. The rates in 1879 and 1880 were respectively 15·2 and 16·6. The Salford marriage rate in the ten years, 1871-1880, averaged 16·8 per 1,000.

Births.—During the 52 weeks of the year 1881, the births of 6,880 children were registered, namely, 3,575 males and 3,305 females. The birth rate, which was equal to 38·8 per 1,000, was the lowest recorded in Salford since the year 1869, and was in defect of the average in the last ten years by nearly 10 per cent. The birth rate was highest,* 40·2 in the district of Regent Road and lowest in that of Broughton.

Vaccinations.—The most recent available particulars with reference to vaccination are those for the year 1879. In that year 83·0 per cent. of the children born were successfully vaccinated, and 11·2 per cent. died unvaccinated. 5·8 per cent. of the infants under one year old therefore remained unprotected against smallpox.

Deaths.—The deaths of 4,008 persons were registered during the 52 weeks of the year as having occurred in Salford, and the deaths of three Salford residents occurred at Monsall Hospital. On the other hand, eleven persons died at the Salford Royal Hospital who were not Salford residents. After making the necessary corrections, the number of deaths attributable to Salford during the year was 4,000. The death-rate for the whole Borough was therefore equal to 22·5 per 1,000 persons living, or, in other words, one person out of every 44 of the Salford population died during the year. The above is the lowest annual rate of mortality ever recorded in Salford. Table C gives the means of comparing the death-rate in Salford during 1881 with that of the preceding 16 years, and Table D sets forth the rate of mortality from all causes, and from certain groups of prevalent diseases, in each year of the past decennium. It will there be seen that the rate of mortality in Salford during the past year was lower than the average rate of the preceding ten years by 5·4 per 1,000, or 19·4 per cent.

Mortality in Salford during 1881

Compared with average.

The following are the general rates of mortality obtaining in the several registration districts during the year:—

	Borough.	Regent Road.	Green-gate.	Pendle-ton.	Brough-ton.	
Average 1871-80..	27·9	.. 29·8	.. 31·4	.. 25·4	.. 21·4	Mortality in registration sub-districts.
„ 1881	22·5	.. 24·8	.. 24·9	.. 21·5	.. 16·4	

It will therefore be seen that the rate of mortality in all the districts of the Borough was remarkably lower than the

* See Table E, on page 34.

TABLE D.

ANALYSIS OF THE MORTALITY IN THE BOROUGH OF SALFORD IN EACH OF THE TEN YEARS, 1871-80; AND IN THE YEAR 1881.

Year.	Deaths of Infants under One year.	DEATHS.						
		From All Causes.		At All Ages from				
		Of children under Five years.	Of persons over 60 years.	All Causes.	Six Miasmatic Diseases.*	Diar-rhœa.	Acute Lung Diseases.	Phthisis.
1871	1134	1987	481	3815	657	359	692	396
1872	932	1585	504	3299	410	249	537	368
1873	1055	1863	616	3884	512	278	674	374
1874	1110	1923	546	3935	569	296	693	339
1875	1141	2039	654	4271	699	283	890	382
1876	1286	2170	596	4407	910	263	842	405
1877	1108	1988	589	4079	574	207	927	413
1878	1324	2262	616	4336	529	340	946	434
1879	1230	2215	708	4495	572	141	1102	480
1880	1403	2592	604	4799	784	477	1003	459
1881	1122	1802	674	4000	367	160	1012	451
DEATH-RATES PER 1000 LIVING.								
Year.	Proportion of Deaths under One Year per 1000 Births	DEATHS.						
		From All Causes.		At All Ages from				
		Of children under Five years.	Of persons over 60 years.	All Causes.	Six Miasmatic Diseases.*	Diar-rhœa.	Acute Lung Diseases.	Phthisis.
1871	221	111.5	77.0	30.3	5.2	2.9	5.5	3.1
1872	173	85.9	78.0	25.3	3.2	1.9	4.1	2.8
1873	185	96.0	90.6	28.3	3.8	2.1	4.9	2.7
1874	189	97.0	78.9	28.2	4.1	2.1	5.0	2.4
1875	178	99.6	91.3	29.5	4.8	2.0	6.2	2.6
1876	189	102.4	80.4	29.5	6.1	1.8	5.6	2.7
1877	161	90.7	76.8	26.3	3.7	1.3	6.0	2.7
1878	185	99.7	77.5	27.1	3.3	2.1	5.9	2.7
1879	170	92.8	84.7	26.7	3.4	0.8	6.5	2.9
1880	198	106.6	70.9	27.9	4.6	2.8	5.8	2.7
Average, 1871-80.	185	98.2	80.6	27.9	4.2	2.0	5.6	2.7
1881	163	71.6	76.5	22.5	2.1	0.9	5.7	2.5

* These are the common infectious diseases; Smallpox, Measles, Scarlet Fever, Whooping Cough, Fever, and Diphtheria.

average; in the Regent Road District the defect was equal to 5.0 per 1,000, in Greengate 6.5, in Pendleton 3.9, and in Broughton 5.0.

The subjoined figures show the variation of the rates of mortality with the season, in this and the preceding ten years:—

	March Quarter.	June Quarter.	September Quarter.	December Quarter.	Seasonal varia- tion of mortality
Average 1871-80 ..	28.9 ..	26.2 ..	27.9 ..	28.8	
„ 1881	26.6 ..	20.5 ..	18.9 ..	24.2	

The rate of mortality throughout the different seasons of the year, thus appears to have been much below the average, but this is especially the case with respect to the third quarter, when the rate of mortality did not exceed 18.9 per 1,000. In the third quarter of the preceding year (1880) when diarrhoea carried off so many infant lives, the rate of mortality at all ages attained the high proportion of 32.0 per 1,000.

Age at Death.—During the 52 weeks of the year, the deaths of 1,122 infants under one year old were registered. These are equal to 28 per cent. of the deaths at all ages, and to 16.3 per cent. of the total births. With the exception of the year 1877, this is the lowest infantile rate recorded in Salford during the ten years 1871-80. 1,802, or 45.1 per cent. of the total deaths occurred within the first five years of life. Calculated on the population estimated to be living under five years of age, these 1,802 deaths are equal to an annual rate of mortality of 71.6 per 1,000, the lowest death-rate at this age recorded in Salford in any previous year, and in defect of the average rate obtaining in the ten years immediately preceding by not less than 27.1 per cent. 828 persons, or 20.7 per cent. of the total deaths, perished at the age group 5-40 years; 696, or 17.4 per cent. at the age group 40-60 years; and 674 persons, or 16.8 per cent. of the total deaths, were over 60 years old at the time of their demise.

The 4,000 deaths recorded during the year 1881 include 2,053 males and 1,947 females. The normal rate of mortality in Salford, calculated on the life table standard, with due allowance for age and sex proportions, is 21.5 per 1,000; namely, 22.4 for males and 20.7 for females. For the first time since records of Salford mortality have been kept, the rate of mortality actually occurring in the Borough has exceeded the normal or life table rate by not more than one per 1,000, or 4.7 per cent. The excess was 7.8 per cent. among males, and 0.96 per cent. among females.

The table at foot gives the average rate of mortality at the various age groups in the years 1871-80. The rate obtaining at these ages, in those years, may therefore be compared with the corresponding rates in 1881. A glance at the table will show that at all ages, without exception, the 1881 rates were very considerably lower than those of the preceding decennium.

Mortality
amongst males
and females.

TABLE E.

POPULATION, DEATHS, AND RATE OF MORTALITY DURING THE FIFTY-TWO WEEKS OF THE YEAR 1881, AT FIVE GROUPS OF AGES, COMPARED WITH THE AVERAGE RATES AT THOSE AGES IN THE TEN YEARS 1871-80, AND THE ENGLISH LIFE TABLE RATES—FOR PERSONS, MALES, AND FEMALES.

	PERSONS.		MALES.		FEMALES.	
	Estimated Population, 1881.	Deaths, 1881.	Estimated Population, 1881.	Deaths, 1881.	Estimated Population, 1881.	Deaths, 1881.
All Ages	177,755	4000	84,428	2053	93,327	1947
Under 5 years ..	25,169	1802	12,660	972	12,509	830
5-20 years	55,595	286	27,307	166	28,288	120
20-40 years	58,755	542	27,138	267	31,617	275
40-60 years	29,421	696	13,668	363	15,753	333
60 and upwards ..	8,815	674	3,655	285	5,160	389

ANNUAL DEATH-RATES PER 1000 LIVING IN 1881, AMONG

	PERSONS.		MALES.		FEMALES.	
	Salford.	English Life Table.	Salford.	English Life Table.	Salford.	English Life Table.
All Ages	22·5	21·5	24·3	22·4	20·9	20·7
Under 5 years ..	71·6	65·7	76·8	70·1	66·4	61·3
5-20 years	5·1	7·1	6·1	7·0	4·2	7·2
20-40 years	9·2	10·3	9·8	10·1	8·7	10·5
40-60 years	23·6	18·3	26·5	19·4	21·1	17·2
60 and upwards ..	76·5	71·7	78·0	73·9	75·4	69·7

AVERAGE DEATH RATES IN THE TEN YEARS 1871-80.

All Ages	27·9	21·5	30·2	22·4	25·9	20·7
Under 5 years ..	98·2	65·7	104·2	70·1	92·1	61·3
5-20 years	6·7	7·1	7·0	7·0	6·5	7·2
20-40 years	10·9	10·3	11·9	10·1	9·9	10·5
40-60 years	26·0	18·3	29·3	19·4	23·2	17·2
60 and upwards ..	80·6	71·7	86·1	73·9	76·7	69·7

TABLE F.

ESTIMATED POPULATION, BIRTHS, BIRTH-RATES, DEATHS, AND RATE OF MORTALITY PER 1,000 OF THE POPULATION DURING THE YEAR 1881 IN THE BOROUGH OF SALFORD, AND IN EACH OF ITS FOUR STATISTICAL SUB-DIVISIONS, FROM ALL CAUSES, FROM CERTAIN CLASSES, AND FROM CERTAIN SUB-CLASSES OF DISEASE, AFTER DISTRIBUTION OF THE BIRTHS AND DEATHS OCCURRING IN PUBLIC INSTITUTIONS.

	BOROUGH OF SALFORD.	REGISTRATION SUB-DISTRICTS.			
		Regent Road.	Green- gate.	Pendle- ton.	Brough- ton.
Population estimated to middle of 1881	177,755	70,343	31,724	43,597	32,091
Births registered in 52 weeks of 1881	6,880	2,826	1,243	1,698	1,113
Birth rate per 1000 persons living.....	38·80	40·20	39·20	38·95	34·70
Deaths registered in 52 weeks of 1881.....	4,000	1,745	790	936	529
Rate of Mortality per 1000 persons living from ALL CAUSES	22·50	24·82	24·90	21·48	16·48
I.—SPECIFIC FEBRILE DISEASES OR ZYMOTICS					
1.—Miasmatic Diseases	2·06	2·48	1·92	1·97	1·43
2.—Diarrhœal Diseases	0·92	1·19	0·95	0·50	0·87
3.—Other Zymotics	0·37	0·51	0·33	0·33	0·16
II.—PARASITIC DISEASES					
0·01	0·01	..	0·02	..	
III.—DIETIC DISEASES					
0·12	0·19	0·16	0·05	0·06	
IV.—CONSTITUTIONAL DISEASES					
4·16	3·90	4·64	4·69	3·58	
V.—DEVELOPMENTAL DISEASES					
1·32	1·52	0·88	1·58	0·94	
VI.—LOCAL DISEASES.					
1.—Diseases of Nervous System	3·06	3·28	3·31	3·19	2·12
2.—Diseases of Circulatory System	1·08	0·87	1·13	1·17	1·37
3.—Diseases of Respiratory System.....	5·70	6·65	7·76	4·61	3·05
4.—Diseases of Digestive System.....	0·83	0·77	1·04	0·78	0·81
5.—Other Local Diseases	0·68	0·76	0·76	0·57	0·56
VII.—DEATHS FROM VIOLENCE					
0·54	0·58	0·60	0·64	0·25	
VIII.—DEATHS FROM ILL-DEFINED CAUSES					
1·65	2·11	1·42	1·38	1·28	

TABLE G.

ANNUAL RATE OF MORTALITY IN SALFORD DURING 1881 FROM EIGHT CLASSES OF DISEASE, AND FROM CERTAIN SUB-CLASSES OF DISEASE, AT FIVE GROUPS OF AGES, PER 1000 PERSONS ESTIMATED TO BE LIVING AT THOSE AGE-GROUPS RESPECTIVELY.

	1871-80.	1881.					
	All ages (average rate).	All ages.	0-5 years.	5-20 years.	20-40 years.	40-60 years,	60 and upw'rds.
ALL CAUSES.....	27·96	22·50	71·60	5·15	9·22	23·65	76·50
I.—SPECIFIC FEBRILE DISEASES OR ZYMOTICS.							
1.—Miasmatic Diseases	4·21	2·07	11·40	0·86	0·31	0·31	0·57
2.—Diarrhoeal Diseases	1·97	0·92	5·72	..	..	0·10	1·70
3.—Other Zymotics	0·50	0·37	1·47	0·13	0·31	0·10	0·12
II.—PARASITIC DISEASES	0·01	..	0·08	..	..	..	..
III.—DIETIC DISEASES	0·09	0·12	..	..	0·15	0·41	0·12
IV.—CONSTITUTIONAL DISEASES ..	4·44	4·16	6·85	1·68	4·17	6·38	4·77
V.—DEVELOPMENTAL DISEASES ..	1·44	1·32	5·00	..	..	..	12·25
VI.—LOCAL DISEASES.							
1.—Diseases of Nervous System ..	3·35	3·05	12·00	0·49	0·49	2·88	11·34
2.—Diseases of Circulatory System.	1·12	1·08	0·08	0·31	0·68	2·52	6·70
3.—Diseases of Respiratory System	5·88	5·71	16·69	0·72	1·31	7·48	28·94
4.—Diseases of Digestive System..	1·09	0·83	1·55	0·18	0·39	1·43	3·74
5.—Other Local Diseases	0·66	0·68	0·11	0·34	0·92	0·95	1·93
VII.—DEATHS FROM VIOLENCE....	0·78	0·54	0·99	0·31	0·31	0·58	2·16
VIII.—DEATHS FROM ILL-DEFINED CAUSES	2·42	1·65	9·66	0·13	0·17	0·51	2·16

VII.—CLASSIFICATION OF THE CAUSES OF DEATH.

A new classification of diseases has been adopted throughout the present report, based on the recently amended nosology of the Registrar-General. In this classification the following alterations will be noticed, all of which seem to be substantial improvements.

SECTION VII.

Adoption of new classification of diseases.

In the first place, the old grouping of diseases into five classes has been discontinued, and the following arrangement substituted:—

CLASS I.—Specific Febrile or Zymotic Diseases.

II.—Parasitic Diseases.

III.—Dietic Diseases.

IV.—Constitutional Diseases.

V.—Developmental Diseases.

VI.—Local Diseases.

VII.—Violence.

VIII.—Ill-Defined Diseases.

The group of specific febrile or zymotic diseases has been entirely re-cast:—Croup, rheumatism, rickets, quinsy, carbuncle, privation and inanition of infancy, delirium tremens, thrush, ague, and certain other diseases, mostly parasitic, have been taken out of this class and referred to their more natural position. Diarrhœa, also, and cholera have been removed from the miasmatic order of diseases, and placed, together with dysentery, in a separate group by themselves. For the future, not only in the annual reports, but also in the weekly and quarterly returns, the old term “seven zymotics,” will be discontinued, and the two sub-classes of diseases formerly included under that designation, will be differentiated as “miasmatic” and “diarrhœal” diseases respectively.

Re-arrangement of the zymotic group.

The old “parasitic” sub-order of diseases, including thrush, worms, itch, hydatids, and various other diseases of this nature, has been removed from its subordinate position as a section of the zymotic class, and erected into a separate class under the title, Parasitic Diseases.

The old “dietic” sub-order of zymotics has also been removed from the first class, and promoted under the same title to the rank of Class III. It will thus be observed that the old zymotic class of diseases has been considerably reduced; and this modification will probably be acceptable, both to the pathologist and the statistician. The new zymotic class consists of six sub-divisions—1, miasmatic; 2, diarrhœal; 3, malarial; 4, zoogenous; 5, venereal; and 6, septic diseases.

The important class of constitutional diseases has also been modified and considerably extended, certain diseases of the old zymotic class, such as rheumatic fever, purpura, scurvy, and

Extension of constitutional class.

SECTION VII. rickets, having been transferred to it from thence. Diabetes, also, which formerly was included under diseases of the urinary system, has been collated to this class; whilst, on the other hand, such imperfectly-specified diseases as dropsy, mortification, &c., have been removed from hence to their proper position in Class VIII.

The large class of local diseases has been less modified than either of the foregoing, but several diseases, such as croup, quinsy, and carbuncle have been transferred to it from the old zymotic class. This group of diseases is sub-divided into 11 orders, according to the organs or group of organs invaded. Thus, orders 1 and 2 refer respectively to diseases of the nervous and the circulatory system; order 3 to disorders of the respiratory system, and so on for the rest. The alterations made in the remaining five orders will easily be understood on comparing the table on page 35 with the corresponding table in former reports.

TABLE H.

DEATHS FROM SEVERAL CAUSES AT ALL AGES, AND AT SIX GROUPS OF AGES, IN THE BOROUGH AND IN ITS REGISTRATION SUB-DISTRICTS, DURING THE YEAR 1881.

	All Ages.		Deaths at the following Ages.							Deaths in the Registration Sub-Districts.			
	Corrected Average, 1871-80.	1881.	Under 5 Years.		5-20.	20-40.	40-60.	60 and upwards.		Regent Road.	Greengate.	Pendleton.	Broughton.
			0-1.	1-5.									
All Causes	4971	4000	1122	680	286	542	696	674		1745	790	936	529
Smallpox	92	7	1	1	..	3	1	1		6	..	1	..
Measles	160	38	6	31	1	..	..	..		18	4	15	1
Scarlet Fever	196	84	7	56	18	2	1	..		33	7	28	16
Typhus	14	7	..	..	2	3	2	..		6	..	..	1
Whooping Cough	164	160	60	98	2	..	..	..		75	36	32	17
Diphtheria	19	20	2	9	7	..	1	1		12	2	3	3
Ill-defined Fever	20	9	..	3	3	2	..	1		6	1	1	1
Enteric Fever	84	42	1	12	15	8	4	2		18	11	6	7
Simple Cholera	2	4	1	1	..	..	1	1		1	2	1	..
Diarrhoea, Dysent:	347	160	116	26	1	1	2	14		83	28	21	28
Venereal Affections	39	21	16	3	1	..	1	..		16	3	2	..
Erysipelas	18	15	9	2	2	1	..	1		7	1	4	3
Pyæmia	6	4	1	1	..	1	1	..		3	1	..	..
Puerperal Fever	7	15	..	..	1	14	..	..		5	2	6	2
Other Zymotics	20	11	2	3	3	2	1	..		5	4	2	..
Parasitic Diseases	4	2	2	..	..	..	..	..		1	..	1	..
Dietic Dis: Intemp:	17	22	..	..	..	9	12	1		13	5	2	2
Rheumatic Fever	25	6	..	..	5	1	..	..		4	1	..	1
Cancer	81	89	..	..	2	17	47	23		36	19	18	16
Tabes Mesent:	72	76	41	24	7	2	2	..		29	21	22	4
Tubercul: Mening:	78	75	32	32	10	..	1	..		22	7	29	17
Phthisis	486	451	10	15	67	215	131	13		167	90	121	73
Scrofula	36	16	5	6	2	2	..	1		4	1	10	1
Constit: Dis: (other)	10	27	2	5	..	8	7	5		12	8	4	3
Prem. Birth	84	117	116	1	..	..	..	..		48	19	30	20
Devel Dis: & Cong: Def:	14	9	9	..	..	..	..	..		3	2	4	..
Old Age	158	108	..	..	..	..	..	108		56	7	35	10
Apoplexy and Paralysis	125	150	..	..	1	15	55	79		53	29	45	23
Epilepsy	20	18	..	..	5	6	6	1		6	4	7	1
Convulsions	261	197	152	43	2	..	..	..		99	39	33	26
Brain and Nerv: Dis: (other) ..	188	178	54	53	19	8	24	20		73	33	54	18
Heart Diseases	196	192	2	..	17	40	74	59		61	36	51	44
Croup	47	28	5	18	3	1	..	1		15	5	4	4
Bronchitis	648	636	133	88	12	35	156	212		299	169	117	51
Pneumonia	268	292	74	82	21	32	50	33		128	59	72	33
Lung & Respir: Dis: (other) ..	82	56	15	5	4	9	14	9		25	13	8	10
Teething	31	5	2	3	..	..	..	..		1	2	2	..
Diges: Org: Dis: of (other) ..	166	142	25	9	10	23	42	33		53	31	32	26
Urinary Org: Dis: of	70	64	..	2	10	15	22	15		31	12	11	10
Parturition, Dis: of	28	39	..	..	2	32	5	..		17	5	11	6
Gener: Orgs: Dis: of	8	7	..	..	..	5	1	1		1	2	2	2
Local Diseases (other)	12	11	..	1	7	2	..	1		5	5	1	..
Accident	28	86	3	20	16	15	14	18		37	16	25	8
Homicide	2	3	2	..	1	..	..	..		2	1	..	..
Suicide	10	7	..	..	..	3	3	1		2	2	3	..
Atrophy	313	208	172	25	3	..	3	5		111	23	41	33
Ill-defined Causes	115	86	44	2	4	10	12	14		37	22	19	8

TABLE I.

CAUSES OF DEATHS REGISTERED IN SALFORD IN EACH OF THE TEN YEARS 1871-80, AND OF DEATHS REGISTERED IN 1881, AND IN EACH QUARTER OF 1881.

Mean Temperature..	°	°	°	°	°	°	°	°	°	°	1881.			
	48·3	49·6	48·5	48·7	49·4	49·3	48·8	48·6	45·8	49·3	Quarters ending			
Years	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	April 2.	July 2.	Oct. 1.	Dec. 31.
All Causes	3815	3299	3884	3935	4271	4407	4079	4336	4495	4799	1180	905	840	1075
Smallpox	227	41	4	4	32	347	93	1	..	..	..	1	..	6
Measles	160	23	236	138	138	145	137	76	139	134	24	4	1	9
Scarlet Fever	60	78	127	156	251	178	119	185	203	279	24	14	22	24
Typhus	20	8	14	20	9	9	8	12	4	20	4	1	1	1
Whooping Cough	113	171	49	133	142	155	102	132	144	219	28	29	25	78
Diphtheria	12	11	8	14	25	10	13	19	24	22	5	4	6	5
Ill-defined Fever .....	..	..	11	31	32	19	19	22	6	26	3	2	2	2
Enteric Fever	65	78	63	73	70	47	83	82	52	84	10	5	12	15
Simple Cholera	2	..	1	1	..	4	..	4	1	3	..	..	4	..
Diarrhoea, Dysent:	359	249	278	296	283	263	207	340	141	477	12	18	95	35
Venereal Affections	21	26	20	37	28	33	39	45	41	33	3	6	8	4
Erysipelas	6	8	15	27	19	15	22	11	12	14	8	1	3	3
Pyæmia .....	..	..	9	13	4	4	9	5	3	..	2	1	..	1
Puerperal Fever .....	..	..	9	7	15	5	3	4	7	10	3	3	2	7
Other Zymotics .....	..	..	..	1	2	1	39	60	38	31	3	2	..	6
Parasitic Diseases	3	4	2	4	6	9	..	..	..	..	..	..	1	1
Dietic Dis: Intemp:	11	6	9	17	29	22	11	13	13	7	4	5	5	8
Rheumatic Fever	19	15	18	31	17	19	34	23	17	14	3	2	..	1
Cancer	44	49	61	72	73	73	81	80	66	74	22	23	27	17
Tabes Mesent:	45	29	31	49	63	84	64	75	66	91	13	18	22	23
Tubercul: Mening:	28	27	35	87	82	62	68	87	86	90	20	23	17	15
Phthisis	396	368	374	339	382	405	413	434	480	459	115	144	97	95
Scrofula	25	29	37	18	20	10	39	29	59	33	8	1	1	6
Constit: Dis: (other)	6	2	..	..	..	2	16	19	17	17	1	10	9	7
Prem: Birth	64	70	56	65	63	91	55	64	91	85	33	30	27	27
Devel Dis: & Cong: Def: .	4	2	2	11	10	16	20	11	28	14	3	1	2	3
Old Age	121	128	156	133	159	138	114	95	122	143	33	31	22	22
Apoplexy and Paralysis ..	96	87	108	100	113	98	105	99	121	117	47	30	23	50
Epilepsy	13	15	20	13	20	15	18	14	23	22	4	17	2	1
Convulsions	179	202	172	213	164	201	238	258	298	246	66	43	45	43
Brain & Nerv: Dis: (other)	159	123	146	130	157	157	152	196	173	170	42	46	38	52
Heart Diseases	152	179	195	153	144	142	140	172	191	159	58	47	39	48
Croup	42	37	32	41	43	42	27	47	48	30	10	8	4	6
Bronchitis	484	398	472	464	585	537	582	577	711	583	286	117	55	178
Pneumonia	145	103	134	166	239	250	280	285	304	329	88	62	37	105
Lung & Resp: Dis: (other)	63	36	68	63	66	55	65	84	87	91	23	14	11	8
Teething	50	38	40	28	24	43	9	6	4	4	..	2	1	2
Diges: Org: Dis: of (other)	92	110	122	148	126	150	156	132	172	170	40	36	33	33
Urinary Org: Dis: of	40	48	48	61	66	51	70	56	68	73	17	17	15	15
Parturition: Dis: of	17	16	18	36	33	22	21	20	27	19	13	4	12	10
Gener: Orgs: Dis: of	6	5	9	9	7	6	4	6	5	11	2	2	2	1
Local Diseases (other)	2	6	6	8	11	14	10	16	14	16	2	3	3	3
Accident	81	101	128	101	101	100	116	115	112	102	20	22	23	21
Homicide .....	..	2	2	2	1	..	1	5	3	3	1	1	1	..
Suicide	3	5	9	12	3	14	4	9	12	9	2	1	2	2
Atrophy	252	239	283	203	274	295	253	307	244	246	51	40	67	50
Ill-defined Causes	128	127	247	207	140	49	20	4	18	20	24	20	16	26

For convenience of comment, it may be sufficient to group the 4,000 deaths registered in the 52 weeks of 1881, as follows :—

	Deaths	Per cent. of Total Deaths.	SECTION VII. Percentage of deaths from principal groups of diseases.
Specific Febrile or Zymotic Diseases..	597	or 14·9	
Constitutional Diseases	740	„ 18·5	
Developmental Diseases	234	„ 5·9	
Local Diseases	2015	„ 50·4	
Unclassed.....	414	„ 10·3	

It will thus be seen that nearly 90 per cent. of the total deaths registered were attributable to one or other of the four principal classes of disease, the remaining 10 per cent. being chiefly composed either of deaths due to violence, or to causes imperfectly defined and therefore not capable of classification.

SPECIFIC FEBRILE OR ZYMOTIC DISEASES.—To this large and important class 597 deaths, or 15 per cent. of the total mortality, were referred. By far the greater portion of these deaths were due to two only out of the six orders into which zymotics are divided, viz., to the miasmatic and diarrhœal orders of diseases. The six miasmatic diseases, by which is meant the general infectious fevers, accounted for 367 of these zymotic deaths, and diarrhœal diseases for 164.

The rate of mortality, therefore, due to miasmatic diseases was equal to 2·07 per 1,000, which is the lowest rate ever recorded in Salford since she first possessed a charter. The mean rate in the ten years ending with 1880 was 4·2 per 1,000.

The Registrar-General's Quarterly Returns for 1881 furnish the means of comparing the Salford rates of mortality from the principal infectious diseases, with those obtaining throughout England and Wales, and in the 20 great towns of England.

The following figures have been deduced from these returns :

ANNUAL DEATH RATE* PER 1000 LIVING IN 1881, FROM THE FOLLOWING DISEASES.

	Mias- matic Diseases, Cols. 2-7.	Small Pox.	Measles.	Scarlet Fever.	Whoop- ing Cough.	Diph- theria.	Fever.	Diarrhœa
	1	2	3	4	5	6	7	8
England and Wales.	1·70	0·11	0·27	0·54	0·39	0·11	0·23	0·53
20 Great Towns....	2·34	0·29	0·47	0·61	0·53	0·14	0·30	0·53
Salford	2·07	0·04	0·21	0·47	0·40	0·12	0·33	0·90

* This rate has been obtained by taking the mean rate of the four quarters.

DEATHS FROM ZYMOTIC DISEASES IN SALFORD IN THE EIGHTEEN
YEARS, 1865-1881.

	1.	2.	3.	4.	5.	6.	7.
	Small Pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diph- theria.	Fever.	Diarrhœa.
1865	25	93	88	100	14	189	339
1866	6	44	75	129	13	254	243
1867	1	101	64	133	21	137	286
1868	4	75	404	82	38	242	367
1869	26	128	163	79	13	166	246
1870	36	7	100	128	11	128	327
1871	227	160	60	113	12	85	359
1872	41	23	78	171	11	86	249
1873	4	236	127	49	8	88	278
1874	4	138	156	133	14	124	296
1875	32	138	251	142	25	111	283
1876	347	145	178	155	10	75	263
1877	93	137	119	102	13	110	207
1878	1	76	185	132	19	116	340
1879	..	139	203	144	24	62	141
1880	..	134	279	219	22	130	477
1881	7	38	84	160	20	58	160

ANNUAL RATE OF MORTALITY PER 1000 OF THE POPULATION.

	1.	2.	3.	4.	5.	6.	Miasmatic Diseases, cols. 1-6.	7.
	Small Pox.	Measles.	Scarlet Fever.	Whoop- ing Cough.	Diph- theria.	Fever.		Diarr- rhœa.
1866-70	0.12	0.60	1.36	0.93	0.16	1.57	4.75	2.48
1871-75	0.48	1.03	0.98	0.90	0.10	0.73	4.22	2.18
1876-80	0.59	0.79	1.19	0.93	0.11	0.61	4.22	1.77
1865	0.22	0.83	0.79	0.90	0.13	1.70	4.57	3.04
1866	0.05	0.39	0.66	1.13	0.11	2.23	4.57	2.14
1867	0.01	0.87	0.55	1.15	0.18	1.18	3.94	2.47
1868	0.03	0.63	3.42	0.69	0.32	2.05	7.14	3.10
1869	0.22	1.06	1.35	0.66	0.11	1.37	4.77	2.04
1870	0.29	0.06	0.81	1.04	0.09	1.04	3.33	2.66
1871	1.80	1.27	0.48	0.90	0.09	0.68	5.22	2.85
1872	0.32	0.18	0.60	1.31	0.08	0.66	3.15	1.91
1873	0.03	1.75	0.94	0.36	0.06	0.65	3.79	2.06
1874	0.03	0.99	1.12	0.95	0.10	0.89	4.08	2.12
1875	0.22	0.96	1.74	0.98	0.17	0.77	4.84	1.95
1876	2.32	0.97	1.19	1.04	0.06	0.50	6.08	1.76
1877	0.60	0.89	0.77	0.66	0.08	0.71	3.71	1.34
1878	0.01	0.47	1.16	0.82	0.12	0.72	3.29	2.12
1879	0.00	0.84	1.22	0.87	0.14	0.37	3.44	0.84
1880	0.00	0.78	1.63	1.27	0.13	0.76	4.57	2.78
1881	0.04	0.21	0.47	0.90	0.12	0.33	2.07	0.90

This comparative statement places Salford in a very favourable light. In the case of the first three diseases in the list, namely, small-pox, measles, and scarlet fever, Salford suffered a considerably lower rate of death than was recorded either in the 20 great towns of England, or even in the whole of England and Wales, including the agricultural districts, where the rate of mortality from such diseases is almost always relatively low. Diphtheria, whooping cough, fever, and diarrhoea, however, gave rise to a higher rate of mortality than that obtaining in other parts of the country.

SECTION VII.

Rate of mortality in Salford from the first three miasmatics compared with that in other towns.

Small-pox.—After an almost complete immunity from small-pox extending over four years, Salford was again threatened with an epidemic of this disease in the last quarter of this year (1881). Sixteen cases were reported to the Health Department in quick succession, and of these eleven were removed to Wilton Hospital. The first case was imported from outside the borough. The patient, an unvaccinated child, three years old, residing at Buxton-street, Pendleton, had been brought from Newton Heath on the death of his mother from small-pox, only three days previously. This child, who was suffering from the disease in a confluent form, rapidly succumbed. The disease was excessively fatal at this time, for of the 16 cases reported not less than six perished. I am thankful to be able to report that this much-dreaded pestilence has not obtained a foothold in Salford, and I feel confident that this is due to the fact of our possessing the means of promptly isolating first cases as they occurred.

Threatened epidemic of smallpox

The small-pox mortality in Salford during 1881 was equal to 0.04 per 1000 of the population at all ages, the rate in the 20 great towns of England being equal to 0.29 per 1000, and that in the whole of England and Wales to 0.11.

Measles.—Only 38 deaths were referred to this usually prevalent disease during 1881, as compared with 134 deaths in the year 1880, and 139 in the preceding year: the corrected decennial average being 160 deaths per annum.

Light mortality from measles during 1881.

The following statement shows the seasonal incidence of measles mortality in 1881; and also, for comparison with this, the corrected average number dying annually in the previous ten years:—

Year.	March Quarter.	June Quarter.	September Quarter.	December Quarter.
1881	24	4	1	9
Corrected average 1871-80	36	54	28	42

It thus appears that throughout the year this disease was much less fatal than in past years; and that with the exception

SECTION VII. of the earlier months, the quarterly numbers did not even approach what may be termed the normal amount. The rate of mortality from measles in the whole of England and Wales was equal to 0·27 per 1,000, and that in the 20 great towns was 0·47, whilst that in Salford did not exceed 0·21 per 1,000.

Unusual immunity from scarlet fever fatality. **Scarlet Fever.**—This disease was fatal in 84 instances during 1881, as compared with 279 and 203 in the years 1880 and 1879 respectively, and 196, the corrected annual average, in the preceding ten years.

The following figures show the variation of scarlatinal fatality, with the season of the year:—

Year.	March Quarter.	June Quarter.	September Quarter.	December Quarter.
1881	24	14	22	24
Corrected average 1871-80	50	38	41	67

The rate of mortality due to scarlet fever in Salford was 0·47 per 1,000 of the population at all ages ; whereas the rate was 0·61 in the 20 great towns, and 0·54 in the whole of England and Wales.

Pertussis.

Whooping Cough.—160 deaths were referred to this disease during 1881, as compared with 219 in the year 1880, and 144 in the preceding year, the corrected annual average being 164. By the accompanying table it will be seen that the mortality from whooping cough was heaviest in the December quarter during 1881, although in previous years the spring quarter has usually been the most fatal.

Year.	March Quarter.	June Quarter.	September Quarter.	December Quarter.
1881	28	29	25	78
Corrected average 1871-80	56	48	28	32

The number of deaths actually referred to whooping cough in the Registrar's Returns by no means represents the sum of the mischief which this disease makes, especially among the young. There is little doubt that much of the lung mortality in later life is due to mischief which primarily had its origin in probably neglected whooping cough.

These 160 deaths from whooping cough in Salford are equal to a rate of 0·90 per 1000. This exceeds the rate obtaining in the 20 great towns by 0·37, and that of England and Wales by 0·51 per 1000.

SECTION VII.

Diphtheria.—20 deaths were referred to this disease during the year, as compared with 22 in 1880, and 24 in 1879. This disease does not seem to vary much in fatality from year to year. The average number of deaths attributed to it, corrected for increase of population did not exceed 19 per annum in the ten years 1871-80. These 20 deaths from diphtheria in Salford give an annual rate of 0·12 per 1000, the rate in the 20 great towns being 0·14, and that in the whole of England and Wales being 0·11.

Mortality from diphtheria.

Fever.—Under this head are included typhus and enteric fever, and also other or ill-defined forms of fever, for which a better classification cannot be found. Seven deaths were referred to typhus fever, 42 to enteric, and nine to other sorts of disease in which pyrexia was the prominent symptom. These deaths collectively are equal to a rate of 0·33 per 1000 living, as compared with 0·30 in the great towns of England, and 0·28 in the whole of England and Wales.

Continued fever.

The following statement shows the seasonal incidence of fever in 1881, compared with that in the preceding ten years :—

Year.	March Quarter.	June Quarter.	September Quarter.	December Quarter.
1881	16	9	15	18
Corrected average 1871-80	27	22	29	40

It thus appears that throughout the four quarters of the year the fever cases recorded fell very much below the average number.

Sanitarians are agreed to regard “fever” as the disease *par excellence* which is amenable to sanitary influences, and therefore a substantial decrease in the fever death-rate, especially if it be continuous, is looked upon as the surest test of improved hygienic condition.

DIARRHŒAL DISEASES.—The deaths referred to the new class of “diarrhœal diseases” in 1881 were very much below the average. In one year only of the preceding decade has the diarrhœal rate of mortality in Salford attained so low a figure as last year—namely, 0·90 per 1,000 of the population. The corrected average number of deaths from diarrhœa in the ten years 1871-80 was 349 per annum ; in the year 1881 the deaths did not exceed 164.

Light mortality from Diarrhœal diseases.

SECTION VII.

Diarrhoea chart.

The accompanying diagram shows the relation of certain meteorological conditions such as temperature and rainfall to diarrhoeal fatality. The facts are given for the 4 years 1877-80 as well as for 1881.

Mortality from Constitutional diseases.

CONSTITUTIONAL DISEASES.—The rate of mortality from these diseases varied little from the average. 740 deaths or 18.5 per cent. of the total mortality were referred to one or other of the diseases belonging to this class. By far the most fatal of the constitutional diseases is phthisis, and it is unsatisfactory to find that, notwithstanding the clemency of the weather, and the low fatality of other diseases generally, the number of deaths from pulmonary consumption during 1881 was considerably in excess of the average.

Mortality from Developmental diseases.

DEVELOPMENTAL DISEASES.—234 deaths or 5.9 per cent. of the total mortality were referred to this class, which relates mainly to two causes of death—premature birth and old age or decay of nature. In view of the fact that a large proportion of the deaths under the former designation are attested by midwives or irregular practitioners, it is somewhat disquieting to note that “premature birth” forms an increasingly large factor in our bills of mortality, the deaths attributed to this cause in 1881 being 117, as compared with 84, the average annual number corrected for increase of population.

Increasing mortality caused by Premature Birth.

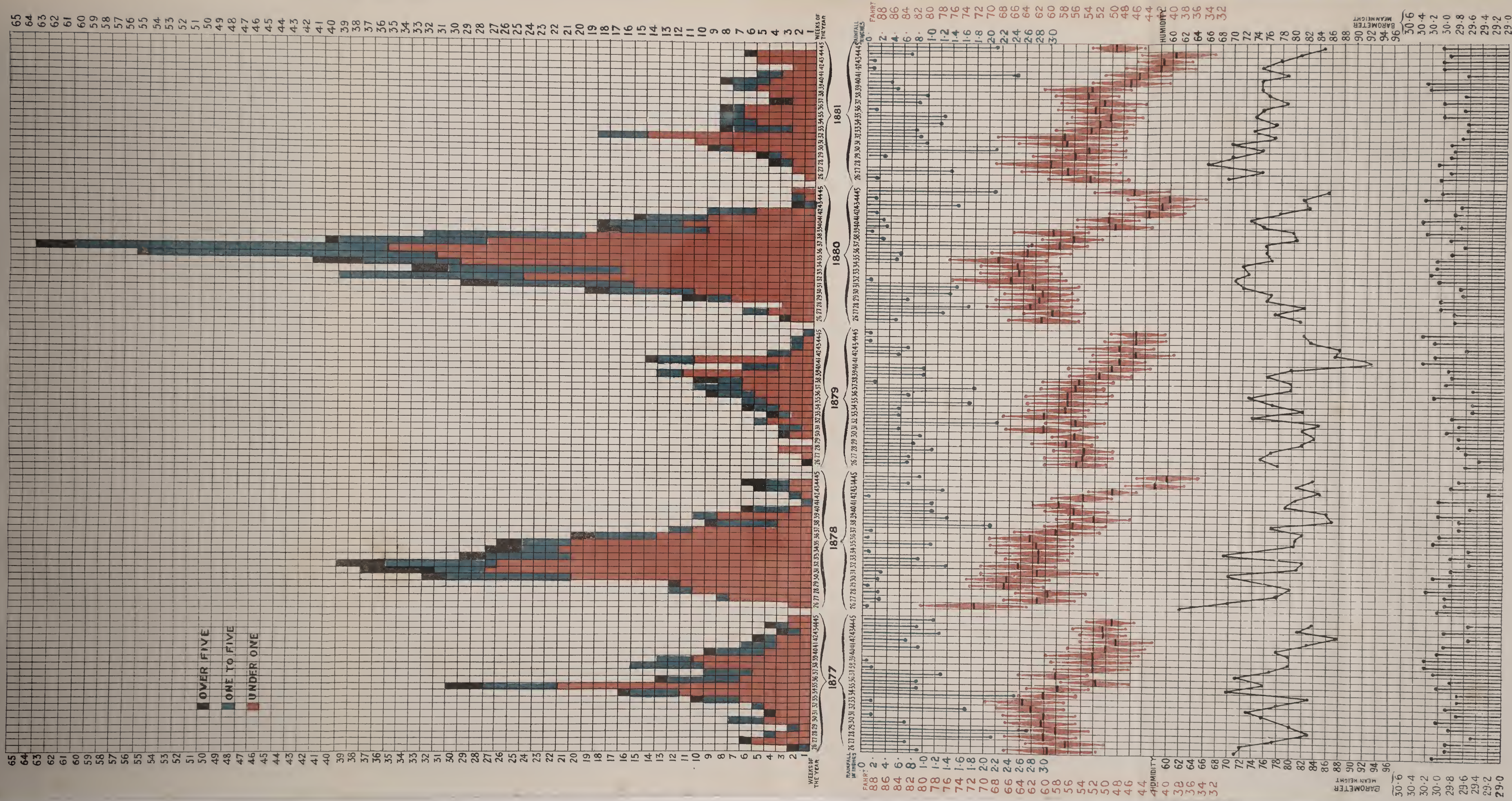
The deaths referred to decay of nature numbered 108 only during 1881, which is less than the corrected average number by just 50 per cent.

Mortality from Local diseases.

LOCAL DISEASES.—To this large and important class, not less than 2,015 or 50.4 per cent. of the deaths recorded were referred. Reference to Table F on page 35 shows that, taken collectively, these deaths are equal to an annual rate of 11.4 per 1,000 of the population—a proportion which differs very slightly from the average rate (12.1) in the previous ten years.

SALFORD-1877-1881.

DIARRHŒA MORTALITY & METEOROLOGY.



Henry F. Jenkins

II.—WORK OF THE
HEALTH DEPARTMENT.

II.—WORK OF THE HEALTH DEPARTMENT.

VIII.—SANITARY INSPECTION.

The present section of the Report is devoted to a detailed statement of the work done by the Officers of the Health Department during the year.

SECTION VIII.
Constitution of
Inspecting Staff.

The Inspecting Staff at present consists of a Veterinary Surgeon, who exercises supervision over the meat trade, and six Sanitary Inspectors. Five of these latter are engaged in securing the abatement of nuisances injurious to health, and in procuring the isolation, where possible, of infectious disease; and the sixth is detailed for special duty under the Adulteration Act, and also to enforce the Bye-laws for the Prevention of Smoke*.

In order to meet the convenience of the public, the Inspectors attend at the Health Office every morning from nine to ten o'clock. Persons requiring the services of the Inspectors will, therefore, do well to make their complaints either personally or by letter, before ten o'clock in the morning, at which hour the Inspectors leave the Office on their respective rounds, and their return cannot always be depended upon until a late hour in the afternoon.

Time of
attendance of
Inspectors.

Persons desirous of consulting the Medical Officer of Health personally, will oblige by calling at the Town Hall before eleven in the morning.

The following table gives a detailed account of the work of the Sanitary Staff during the year, showing the number and character of the nuisances observed, and the nature of the action taken to secure their abatement, together with the particulars of general sanitary work done in obedience to our requirements :—

Details of
Sanitary work.

* On Page 13 reference is made to this divided appointment, and a suggestion offered with regard to our future mode of dealing with the smoke nuisance.

PARTICULARS OF WORK DONE BY THE HEALTH DEPARTMENT
DURING THE YEAR 1881.

	Borough.	Regent Road.	Greengate.	Pendleton.	Broughton	
No.of Complaints lodged at HealthOffice	2076	765	625	201	485	
Inspections made	{ Of Dwelling-houses	14735	6561	3657	1844	2673
	„ Lodging-houses	659	345	266	48	..
	„ Slaughter-houses	2372	764	458	838	312
	„ Dairies and Milkshops	1737	994	262	276	205
	„ Shippens	728	260	13	299	156
	By Smoke Inspector—Observations taken	494	147	194	127	26
	Under Adulteration Act—Samples collected for Analysis	479	229	72	103	75
	By Meat Inspector—Seizures made..	233	182	3	48	..
	Miscellaneous Sanitary Inspections..	212	11	7	34	160
	Re - inspections after Service of Notice	6803	2506	1383	2125	789
{ Total Inspections made by Staff....	28452	11999	6315	5742	4396	
Orders issued for Abatement of Nuisances	2868	1353	736	534	245	
Nuisances abated pursuant to order.	{ Houses and Premises cleansed, repaired, and limewashed	1859	875	503	323	158
	Houses disinfected after Infectious Disease	480	235	74	103	68
	House drains repaired, trapped, or disconnected	1354	484	460	246	164
	Ashpits and Privies repaired or reconstructed.....	1079	366	274	371	68
	Accumulations of Manure and Refuse removed	152	70	35	24	23
	Number of Ashpits attended to after complaint	1557	302	293	88	874
	Improperly-kept Animals removed..	14	2	12	..	..
	Overcrowding of Dwellings abated..	29	17	5	7	..
	Passages and Yards drained and flagged	732	260	86	301	85
	{ Total Number of Nuisances abated..	7256	2611	1742	1463	1440
Registered.	{ Lodging-houses.....	64	35	9	20	..
	Slaughter-houses	43	14	7	16	6
	Dairies and Milkshops	797	481	147	138	31
	Shippens	56	20	1	23	12
	Marine and Second-hand Stores ..	178	84	55	31	8
Patients removed to Fever Hospital....	171	112	21	17	21	
Infected bedding and clothing disinfected	180	75	25	32	48	
Infected bedding destroyed.....	26	18	1	6	1	
Legal proceedings taken (see Page 55)...	..	..	..	..	..

It will thus be seen that 28,452 inspections were made by the staff during the year ; that 2,868 notices were served requiring the abatement of nuisances, and that 7,256 separate nuisances were abated in obedience to these notices. Bearing in mind the terrible period of depression through which we have been passing of late, it is exceedingly creditable to the property owners of Salford that the whole of these works have been carried out without the imposition of a single fine. It is true that 49 "Orders to Abate Nuisances" were obtained from the bench during the year, but in each case these were promptly obeyed, and consequently I have not been under the necessity of applying to the magistrates for the infliction of penalty in any one case.

SECTION VIII.
Inspections made.
Nuisances abated.
Orders to abate nuisances.

The Sanitary Inspectors obtained the removal to the Fever Hospital of 171 persons suffering from dangerous infectious disease during the year, and also caused to be disinfected at the hospital 180 parcels of infected bedding and clothing. In addition to this, 26 parcels of filthy mattresses and other bedding were destroyed by burning.

Removal of Infectious cases to hospital.
Disinfection of bedding.

IX.—UNWHOLESOME FOOD SEIZED AND DESTROYED.

Mr. A. W. K. Fordham, M.R.C.V.S., of this department Meat Inspector for the Borough, has made the following seizures of bad meat and other unwholesome commodities, which were exposed for sale, or deposited in a place by way of preparation for sale and intended for the food of man :—

SECTION IX.
Seizure of unwholesome food.

			Weight.			
No. of Seizures.			Tons.	Cwts.	Qrs.	Lbs.
Beef	27	.....	4	13	0	22
Mutton and lamb	162	.....	4	4	3	1
Veal	15	.....	0	7	3	20
Pork and bacon..	9	.....	0	15	2	2
Horse beef.....	4	.....	0	10	2	7
Tripe	1	.....	0	0	1	0
Rabbit	2	.....	0	2	2	10
Goat	1	.....	0	0	2	9
221			10	15	1	15

It thus appears that nearly eleven tons of unwholesome food were confiscated during the year, as compared with 12½ tons in 1880, and 11½ tons in 1879. Seventeen persons were summoned before the magistrates for trafficking in unsound meat, and fines to the aggregate amount of £58 10s. od. were inflicted.

X.—ADMINISTRATION OF SALE OF FOOD AND DRUGS ACT.

SECTION X. During the year the Public Analyst (Mr. Joseph Carter Bell, F.C.S.) has analysed 478 samples of food and drink, submitted to him by Inspector Thompstone, of this Department, namely, 376 samples of milk, 11 of butter, 61 of groceries, 8 of wines and spirits, and 22 of other articles of food. Of the total number of samples examined 16·3 per cent. were found more or less adulterated; just half the average proportion thus certified in the years 1875-80. The last line but one in the appended table shows the reduction in adulteration observed in 1881 as compared with earlier years, and reveals very plainly how great is the improvement effected by the Adulteration of Foods Act, in the quality of the more important articles, of our food and drink.

Sale of Foods and Drugs Act.

Improvement effected by administration of Act.

The following statement gives details of the work done under this Act :—

SAMPLES COLLECTED BY THE INSPECTOR UNDER THE SALE OF FOOD AND DRUGS ACT FROM 1875 TO 1881.

	Total No. of Samples	Milk.	Butter.	Bread and Flour.	Drugs.	Groceries.	Beer and Porter.	Wines and Spirits,	S'ndries
1875 ..	60	37	1	1	1	..	7	4	9
1876 ..	119	43	2	18	34	17	..	..	5
1877 ..	390	114	7	159	22	30	18	37	3
1878 ..	418	197	10	35	31	25	24	70	26
1879 ..	518	306	16	130	15	28	10	13	..
1880 ..	506	269	12	48	5	52	71	18	31
1881 ..	478	376	11	1	..	61	..	8	21

PERCENTAGE OF THE ABOVE ARTICLES RETURNED AS ADULTERATED.

	Total No. of Samples	Milk.	Butter.	Bread and Flour.	Drugs.	Groceries.	Beer and Porter.	Wines and Spirits.	S'ndries
1875 ..	66·6	62·1	100·0	..	..	..	100·0	75·0	66·6
1876 ..	40·3	55·8	50·0	27·8	35·3	17·6	..	..	60·0
1877 ..	27·4	40·3	28·6	11·3	13·6	6·7	..	97·3	..
1878 ..	29·9	29·4	10·0	2·9	51·6	4·0	4·2	67·1	..
1879 ..	12·0	13·1	25·0	5·4	26·6	10·7	10·0	2·3	..
1880 ..	20·2	25·2	75·0	6·3	..	17·3	11·3	11·1	9·7
Average,									
1875-80.	32·7	37·7	48·1	9·0	25·4	11·30	25·1	50·5	45·4
1881 ..	16·3	18·1	9·1	..	..	1·6	..	37·5	23·8

Particulars of Milk consigned to Salford Dealers by Farmers in and outside the Borough showing the number and quality of samples procured at the Railway Stations, &c., before delivery.

		Result of Analysis,	Place of Delivery.
1	L. R., Thornton-le-Moors	Pure	Old Trafford Station
2	T. J., Summerseat, near Bury ..	Very poor	Pendleton Station.
3	A. A., Finiscoul, near Blackburn	Do.	Do.
4	D. R., Gisburn, Yorkshire	Pure	Victoria Station.
5	Do. do.	Do.	Do.
6	M. J., Mobberley, Cheshire	20 % of added water	Old Trafford Station.
7	S. M. A., Ollerton, Cheshire	Pure	Do.
8	H. G., Chatburn, near Clitheroe ..	Do.	Pendleton Station.
9	Do. do. do. ..	Do.	Do.
10	N. O., Bleackley, near Manchester	Do.	Salford.
11	Do. do. do.	Do.	Do.
12	H. T., Heaton Mersey, nr. Stockport	22 % of water	Salford Union Work-house.
13	Do. do. do.	Do.	Do. do.
14	T. S., Nantwich, Cheshire	Pure	Ordsal Lane Station.
15	M. J., Pendleton	Do.	Pendleton.
16	B. W., Bamber Bridge, Lancashire	Robbed of 10% of its cream	Victoria Station.
17	T. J., Houghton, near Preston ..	15% of added water	Do.
18	H. J., Poynton, Cheshire	6% of added water	Longsight Station.
19	Do. do. do.	Very poor milk	Do.
20	A. C., Miller's Dale, Derbyshire ..	15% of added water	Ardwick Station.
21	Do. do. do. ..	Do. do.	Do.
22	L. R., Thornton-le-Moors	7% of added water	Old Trafford Station.
23	H. E., Ince, near Frodsham	Pure	Do.
24	P. R., Knutsford, Cheshire	Poor	Do.
25	M. T., High Leigh, Cheshire	Do.	Do.
26	P. T., Mobberley, Cheshire	Pure	Do.
27	P. J., Tarvin, Cheshire	5% of added water	Do.
28	L. G., Barrow, near Chester	Very poor milk	Victoria Station.
29	D. P., Preston Brook, near Chester	Pure	Do.
30	N. M., Frodsham, near Chester ..	Very poor milk	Old Trafford Station.
31	D. P., Preston Brook, Cheshire ..	Pure	Victoria Station.
32	A. W., Dunham-o'th'-Hill, Cheshire	Very poor	Old Trafford Station
33	T. S., Nantwich, Cheshire	Do.	Ordsal Lane Station.
34	A. A., Feniscoul, near Blackburn	Pure	Pendleton Station.
35	P. J., Higher Broughton, near Man- chester	Very poor	Higher Broughton.
36	B. D., do. do. ..	Pure	Do.
37	G. W., do. do. ..	Do.	Do.
38	Do. do. do. ..	4% of added water	Do.
39	W. R., do. do. ..	Pure	Do.
40	E. J., Mobberley, Cheshire	10% of added water	Old Trafford Station.
41	J. J., Chester	Poor	Do.
42	J. T., Chester	Do.	Do.
43	L. T., Tabley, near Knutsford ..	Pure	Do.
44	Do. do.	5% of added water	Do.
45	F. J., Marston, near Northwich ..	4% of added water	Do.
46	M. G., Kenyon, near Warrington	Pure	Ordsal Lane Station
47	M. S., Newton-le-Willows, near Warrington ..	Do.	Do.
48	B. J., Kenyon, near Warrington.	Do.	Do.

		Result of Analysis.	Place of Delivery.
49	S. W., Tabley, near Knutsford..	Pure	Old Trafford Station,
50	J. P., Mobberley, Cheshire	Do.	Do.
51	P. T., Lymm, near Warrington..	Do.	Do.
52	B. J., Warrington	Do.	Do.
53	P. T., Mobberley, Cheshire	Do.	Do.
54	S. W., Tabley, near Knutsford..	Do.	Do.
55	H. T., Mobberley, Cheshire	Do.	Do.
56	C. P., Warrington	Do.	Do.
57	C. T., Warrington	Do.	Do.
58	H. J., Blackburn, Lancashire....	Do.	Salford Station.
59	M. A., Newton-le-Willows	12% of added water	Ordsall Lane, Salford.
60	H. G., Chatburn, near Clitheroe..	Pure	Pendleton Station.

XI.—ACTION UNDER SANITARY BYE-LAWS.

SECTION XI.
Common lodging
houses.

There are twelve **common lodging-houses** in the borough, being an increase of two upon the number existing in 1880. These houses have been regularly visited by the inspector, and the keepers have complied in all cases with our instructions as to ventilation and provision of suitable bedding.

Licensed houses
sub-let in apart-
ments.

In addition to these, there were at the close of the year **336 houses sub-let in apartments**, 47 persons having discontinued to let lodgings since the beginning of the year. The due supervision of these lodging-houses forms a most important part of the duty of the inspectors. During the year five lodging-houses were visited by infectious diseases. Three cases of scarlet fever occurred in one house and two in another, all of which were removed to Wilton Hospital. In addition to these, three cases of measles occurred in lodging-houses during the year, which were not removed to hospital.

Inspection of
lodging-houses
at night.

140 lodging-houses were inspected at night on suspicion of their being overcrowded. In 34 cases the lodging-house keepers were summoned for harbouring a greater number of lodgers than the houses were licensed to accommodate.

Dairies and milk
shops on register.

Action under the “Dairies and Cowsheds’ Act, 1879.”—At the close of the year there existed in the borough 597 houses or parts of houses which were registered for the sale of milk. The keepers of these milk shops have in almost every case complied with the requirements of the bye-laws as to lime-washing, cleansing, and painting their premises. The number of cowsheds and shippens on the register at the end of the year was 33.

Cowsheds and
shippons regis-
tered.

XII.—SUPERVISION OF OFFENSIVE TRADES.

SECTION XII.
Private slaughter
houses.

There are forty-three **private slaughter-houses** in the borough, being an increase of two upon the number existing in 1880. These establishments were carefully watched by night as well as by day by Inspector Fordham, who paid 2,372 visits to them in the course of the year.

The appended Statement gives the particulars of the Cases in which Magisterial proceedings were adopted in order to obtain the abatement of Nuisances, or to compel obedience to Sanitary requirements :—

Particulars of Complaint.	No. of Cases.	How disposed of.	Amount of Fines.
Adulteration of food and drugs..	42	{ Twenty-nine fined, in all £59 15s.; } nine withdrawn, four dismissed }	£ s. d. 59 15 0
Refusing to sell milk	2	Two fined, in all £7	7 0 0
Being in possession of diseased } meat	3	{ Two persons committed for a } month each, one dismissed .. }	....
Exposing diseased meat for sale..	5	Four fined £5 each, one not served	20 0 0
Dressing calf in unlicensed pre- } mises	1	One fined 20s.	1 0 0
Neglecting to mark cattle, as } required by the Contagious } Diseases Order.....	25	{ Eighteen fined, in all £17 5s.; } seven not served	17 5 0
Neglecting to cause animals to } be slaughtered within 4 days } after being exposed for sale..	6	{ Five fined, in all £10 7s. 6d.; } one not served	10 7 6
Exposing cattle in Salford } Market after being exposed } for sale in another market ..	3	Three dismissed .....	....
Removing cattle into an in- } fected area	22	{ Sixteen fined, in all £14 12s. 6d.; } three withdrawn, two dis- } missed, one not served..... }	14 12 6
Using furnaces not constructed } to consume smoke arising } therefrom	15	{ Eleven fined, in all £33 10s.; } three withdrawn, one dis- } missed	33 10 0
Negligently using furnaces con- } structed to consume smoke } arising therefrom	17	{ Twelve fined, in all £11 5s.; } four withdrawn, and one dis- } missed	11 5 0
Ashpits, privies, drains, and } premises in such a state as } to be a nuisance	49	{ Twenty-one "orders to abate" } twenty-seven withdrawn, and } one dismissed .....	....
Letting houses in lodgings with- } out being registered.....	27	{ Twenty fined, in all £4 14s. 6d.; } five withdrawn, one dismissed }	4 14 6
Permitting more persons to } sleep in rooms than they are } registered to accommodate..	9	{ Seven fined, in all £1 17s. 6d.; } one withdrawn, and one not } served	1 17 6
Permitting house to be in such } a condition as to be preju- } dicial to health.....	1	Fined 20s.....	1 0 0
Carrying or causing to be car- } ried offensive matter through } the streets during prohibited } hours	11	{ Nine fined, in all £3; two with- } drawn	3 0 0
Throwing nightsoil on the street.	1	Fined 20s.....	1 0 0
Depositing offensive matter on } land not being a wharf for } the shipment of the same ..	1	Fined 20s.....	1 0 0
Burning bricks nearer than 60 } yards to dwelling-houses ..	3	Three fined, in all £3 5s.	3 5 0
Establishing offensive trade } without consent of Corpora- } tion	1	Withdrawn .....	....
Neglecting to pay fine for milk } adulteration	1	Committed to prison .....	....
	245		190 12 0

SECTION V.

Nuisance caused
by.

In previous reports I have referred to the nuisance caused by the private slaughter-houses, and have felt bound to condemn them on sanitary as well as moral grounds. Not only in the interests of the public, but for the protection of those meat dealers who honestly follow their trade, it is certainly desirable that the facilities offered by the private slaughter-house for the disposal of unsound meat should be done away with, and that suitable and commodious public Abattoirs should be established under Corporate management.

Urgent need of
public Abattoirs.

Other offensive
trades.

In my annual report for 1879 particulars were given of the "offensive trades" requiring supervision at that time. As the list of these does not materially differ at the present time, it may suffice to say that all establishments coming under this category receive the constant attention of the Health Department.

APPENDIX.

TABLE J.

PRICES OF COAL, FLOUR, POTATOES, AND BUTCHER'S MEAT, AND THE
NUMBER OF PAUPERS RELIEVED IN SALFORD, 1871 TO 1881.

	AVERAGE PRICES OF FOOD AND FUEL.				PAUPERISM.	
	Coal, per ton.	Flour, per stone.	Potatoes, per load.	Butchr's Meat, per lb.	Weekly Average of Paupers Relieved during the year.	
					Indoor.	Outdoor.
	£ s. d.	£ s. d.	£ s. d.	d.		
1871	0 7 5½	0 2 0	0 8 8¼	6¾	791	2343
1872	0 10 0¼	0 2 1¼	0 4 6¾	6½	764	1839
1873	0 15 9¾	0 2 3	0 13 0¼	7¾	817	1711
1874	0 16 1¾	0 2 2	0 11 4	7½	853	1842
1875	0 12 4	0 1 7½	0 10 6¾	7½	872	1652
1876	0 11 6	0 1 9¼	0 10 7½	7½	944	1409
1877	0 10 5	0 2 1½	Various.	7¼	1037	1662
1878	0 9 10	0 1 7½	Various.	7¾	1146	2326
1879	0 7 5	0 1 11½	0 14 0	6¾	1442	4023
1880	0 7 11	0 2 5¾	0 10 0	7⅛	1559	3488
1881	0 7 8	0 1 8¾	0 10 0	7¼	1640	3039

TABLE OF DEATHS DURING THE YEAR 1881, IN THE URBAN SANITARY DISTRICT OF SALFORD, CLASSIFIED ACCORDING TO DISEASES, AGES AND LOCALITIES, AND SHOWING ALSO THE POPULATION OF SUCH LOCALITIES, AND THE BIRTHS THEREIN DURING THE YEAR.

	Mortality from all Causes, at subjoined Ages.							Mortality from subjoined Causes, distinguishing Deaths of Children under Five Years of Age.																								
	Population at all ages.		Registered Births.	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Croup (not "spasmodic.")	Whooping Cough.	Continued Fevers.			Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Ague.	Phtisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	Other Diseases.		
	Census, 1881.	Estimated to middle of 1881.															Typhus.	Enteric or Typhoid.	Other or Doubtful.													
Total for Borough } exclusive of Pub- } lic Institutions.. }	176233	177755	6779	3622	1086	640	170	182	985	559	Under 5. 5 upwds.	31	58	10	22	156	..	13	3	136	2	..	11	..	..	..	24	387	2	20	850	
Public Institutions. { Hope Hospital. } Workhouse .. Wilton Fever Hospital .. Royal Hospi- tal and Dis- pensary ..											Under 5. 5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
			101	306	31	30	7	13	127	98	Under 5. 5 upwds.	6	..	1	1	2	..	1	..	6	..	..	..	..	..	..	..	50	10	..	..	35
			..	29	..	7	10	6	6	..	Under 5. 5 upwds.	1	5	..	..	..	..	2	5	..	..	..	..	..	..	..	..	..	1	..	..	116
			..	36	1	4	9	3	13	6	Under 5. 5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	5	..	8
Totals	176233	177755	6880	4008	1118	681	196	204	1134	675	Under 5. 5 upwds.	37	63	11	23	158	..	13	3	142	2	..	11	..	..	15	..	24	397	2	25	886
											5 upwds.	1	21	9	5	2	4	29	6	18	2	6	4	..	..	..	427	589	190	74	802	

The subjoined numbers have also to be taken into account in judging of the mortality of this Division of the Sanitary District.

Deaths occurring outside Salford among persons belonging thereto	3	..	..	..	2	1	..	Under 5. 5 upwds.	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Deaths occurring within Salford among persons not belonging to the Town ..	11	..	1	..	1	6	3	Under 5. 5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	1	5

INDEX.

	PAGE.		PAGE.
Abatement of Nuisances	50	Epidemic Diseases	22
Abattoirs Public	56	Estimate of Population	29
Advice of Medical Officer	20	Excrement Disposal	20
Adulteration of Food	52	Exhumation of Body	21
Age at Death	33		
Analysis of Mortality	37	Factory Labour and Infantile Neglect	16
Area of Borough	29	Factory Smoke	12
Atmosphere, Impurities of	11	False Certificates of Birth	18
		Fever, Deaths from	45
Bakehouse Furnaces	13	Fever Hospital (Report)	24
Births and Birth Rates	31	Filth Removal	20
Blacksmith's Forges	13	Food, Adulteration of	52
Boilers, Steam	12	Food, Unwholesome	51
Brain Diseases	39	Food and Fuel, Price of (Appendix) ..	1
Brick Burning Nuisance	19	Fox, Mr., Reports of	11
Brindle Heath Scarlatina	23	Furnaces, Factory	12
Bye Laws, Sanitary	54	Health of Salford	7
		Health Department, Work of	49
Causes of Death	37	Heart Disease	39
Chart, Diarrhœa	46	Hospital, Fever	24
Clandestine Burial	18	Hospital Expenditure	25
Classification of Causes of Death	37		
Common Lodging Houses	54	Illegitimacy	18
Condemned Meat	51	Infantile Neglect	16
Conditions Injurious to Health	11	Infectious Disease	22
Contamination of Atmosphere	11	Inhabited Houses	29
Constitutional Diseases	46	Inquests	15
Continued Fever	45	Inspectors, Sanitary	49
Coroners Inquests	15	Isolation of Infectious Disease	24
Cow Sheds	54		
Crèches	17	Life Saving	7
		Life Table	34
Dairies and Milkshops	54	Lodging Houses	54
Day Nurseries	16	Local Diseases	46
Deaths and Death Rates	31	Local Government Return (Appendix).	2
Deaths not Certified	15	Lung Diseases	39
Density of Population	30	Lung Disease and Smoke Nuisance	11
Developmental Diseases	46		
Diarrhœa Chart	46	Magisterial Proceedings	55
Dietic Diseases	35	Marriages and Marriage Rates	31
Diphtheria	45	Meat, Unwholesome	51
Disinfecting Apparatus	21	Measles	23, 43
Disinfection of Houses	50	Measles Epidemic	23
Disinfection of Bedding	51	Medical Aid in Sickness	15
Disease Infectious	22	Medical Officer, Advice of	20
Duties of Sanitary Staff	49	Meteorology	8
		Miasmatic Diseases	35
Elevation	29	Mid-Cheshire Statistics	11
Enteric Fever	45	Midden Refuse in Streets	20
Enumeration Census	29	Midwife, Prosecution of	18

	PAGE.		PAGE.
Milkshops Order	54	Sanitary Bye Laws	54
Mortality, Standard Rate of	33	Sanitary Inspectors ..	49
Mortality, Rate of, 1877-80	32	Sanitary Progress	7
Mortality, Rate of, 1881	31	Scarlet Fever	44, 23
Mortality, Rate of, in Districts	31	Scavenging, System of	20
Mortality, Infantile	16	Seizures of Bad Meat	51
Mortality, Male and Female	34	Slaughter Houses (Private)	54
Nightsoil Removal	20	Small Pox	23, 43
Normal Death Rate	34	Smoke Inspector	13
Nosological Tables	39	Smoke Nuisance	11
Nuisances, Abatement of	50	Smoke Nuisance in 1856	13
Nurseries Day	17	Statistics, Vital	29
Offensive Trades	54	Temperature (see Meteorology)	8
Ordsal Hall, Day Nursery	17	Tip Nuisance	20
Ordure, Deposit of in Streets	20	Town Life, Effects of	11
Phthisis, Deaths from	39, 46	Trades, Offensive	54
Population, Estimate of	29	Tubercular Disease	39
Population, Increase of ..	29	Typhus Fever Epidemic	22
Population, Movement of	29	Uncertified Deaths	15
Posters <i>re</i> Infectious Disease	23	Unclassified Deaths	39
Progress, Sanitary	7	Unwholesome Food	51
Public Health	7	Vaccination	31
Pulmonary Disease ..	35, 39	Value, Rateable	29
Puerperal Fever	24	Violent Deaths	39
Rainfall	10	Want of Medical Aid in Sickness	15
Rateable Value ..	29	Water Supply, Analysis	22
Refuse, Midden	20	Whooping Cough	44
Reports to Health Committee	20	Work of Health Department	49
Sale of Food and Drugs Act	52	Workhouse, Deaths in (Appendix)	2
Sanitary Association, Day Nurseries ..	16	Zymotic Diseases	41